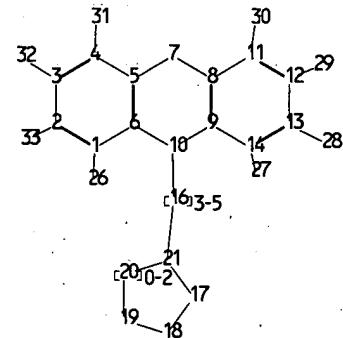
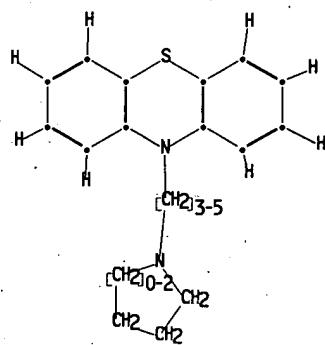


L Number	Hits	Search Text	DB	Time stamp
1	5602	("514/183,224.8,225.2,225.8,225.5,226.2,411,311,299,313,").CCLS	USPAT	2003/05/23 10:25
2	486	("544/14,35,41,44").CCLS	USPAT	2003/05/23 10:30
3	506	("548/566,579").CCLS	USPAT	2003/05/23 10:30
4	1260	(546/152,159).CCLS	USPAT	2003/05/23 10:30
5	0	((("514/183,224.8,225.2,225.8,225.5,226.2,411,311,299,313,").CCLS) and (("544/14,35,41,44").CCLS) and ((("548/566,579").CCLS) and ((546/152,159").CCLS)	USPAT	2003/05/23 10:31

narrow search
around the
species of Claim 32.



chain nodes :

16 26 27 28 29 30 31 32 33

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 17 18 19 20 21

chain bonds :

1-26 2-33 3-32 4-31 10-16 11-30 12-29 13-28 14-27 16-21

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14
17-18 17-21 18-19 19-20 20-21

exact/norm bonds :

5-7 6-10 7-8 9-10

exact bonds :

1-26 2-33 3-32 4-31 10-16 11-30 12-29 13-28 14-27 16-21 17-18 17-21 18-19
19-20 20-21

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-11 9-14 11-12 12-13 13-14

isolated ring systems :

containing 1 : 17

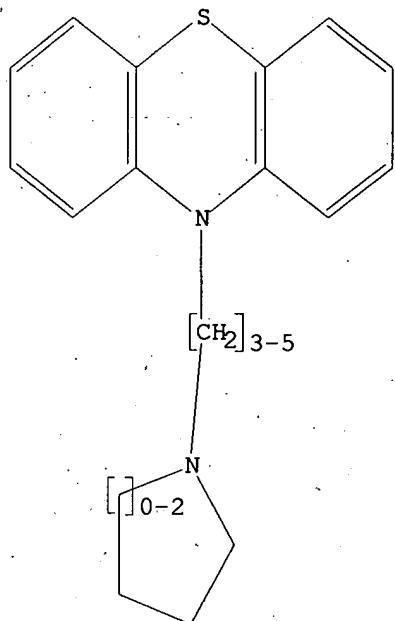
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 26:CLASS
27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS

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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 125 TO ITERATE

100.0% PROCESSED 125 ITERATIONS 38 ANSWERS
SEARCH TIME: 00.00.01

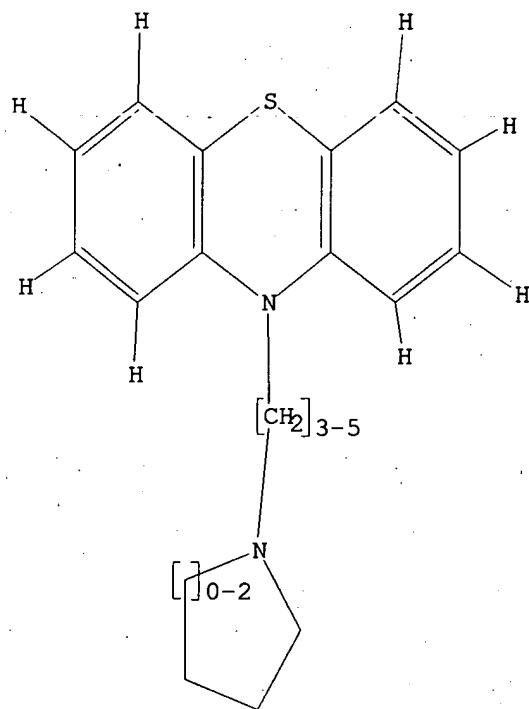
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BATCH **COMPLETE**
PROJECTED ITERATIONS: 1830 TO 3170
PROJECTED ANSWERS: 391 TO 1129

L2 38 SEA SSS SAM L1

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L3 STRUCTURE UPLOADED

=> d 13
L3 HAS NO ANSWERS
L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 13 sss sam
 SAMPLE SEARCH INITIATED 15:59:02 FILE 'REGISTRY'
 SAMPLE SCREEN SEARCH COMPLETED - 125 TO ITERATE

100.0% PROCESSED 125 ITERATIONS 2 ANSWERS
 SEARCH TIME: 00.00.01

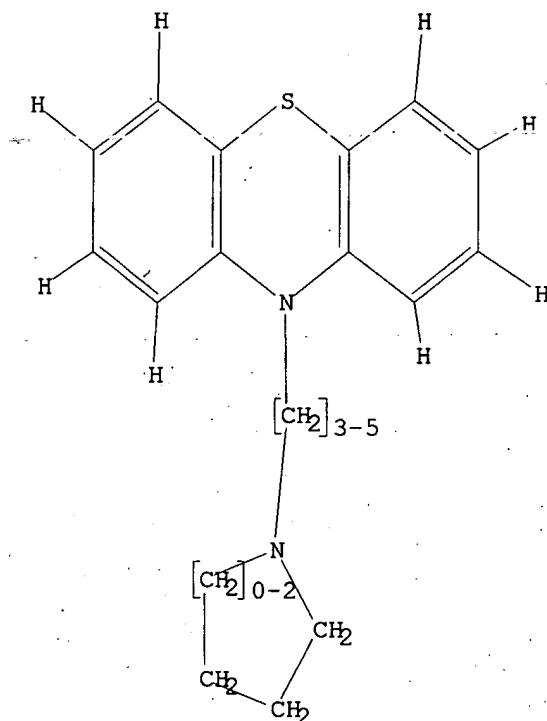
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 1830 TO 3170
 PROJECTED ANSWERS: 2 TO 124

L4 2 SEA SSS SAM L3

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 Uploading 09849400 (patel).str

L5 STRUCTURE UPLOADED

=> d 15
 L5 HAS NO ANSWERS
 L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 15 sss sam

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SAMPLE SCREEN SEARCH COMPLETED - 305 TO ITERATE

100.0% PROCESSED 305 ITERATIONS
SEARCH TIME: 00.00.01

1 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 5053 TO 7147
PROJECTED ANSWERS: 1 TO 80

L6 1 SEA SSS SAM L5

=> s 15 sss ful

FULL SEARCH INITIATED 16:00:00 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 5799 TO ITERATE

100.0% PROCESSED 5799 ITERATIONS
SEARCH TIME: 00.00.01

17 ANSWERS

L7 17 SEA SSS FUL L5

=> s 17

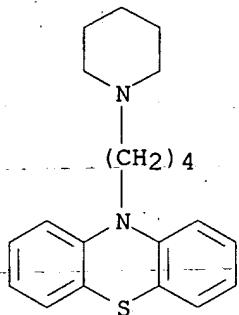
L8 38 L7

09/849,400 (Patel)

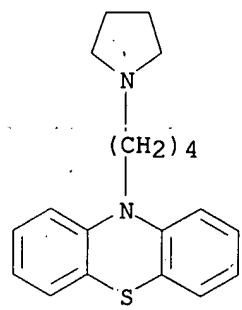
=> d 18 1-38 bib,ab,hitstr

L8 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 2003:118638 CAPLUS
 DN 138:153540
 TI Preparation of aminobutylphenothiazines, -iminodibenzyls, and related compounds as chemosensitizing agents against chloroquine resistant plasmodium falciparum
 IN Lin, Ai J.; Guan, Jian; Kyle, Dennis E.; Milhous, Wilbur K.
 PA USA
 SO U.S. Pat. Appl. Publ., 27 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003032801	A1	20030213	US 2001-849400	20010507 ← Applicant's
PRAI	US 2001-849400		20010507		
OS	MARPAT 138:153540				
AB	Title compds. [I; X = (substituted) alkyl, heteroatom; n = 4-6; Y = (substituted) alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, NR ₁ R ₂ ; R ₁ , R ₂ = H, heteroatom, (substituted) alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl; each ring structure may be substituted], were prep'd. Thus, 10-(4-pyrrolidin-1-ylbutyl)phenothiazine (general prepn. given) at 50 ng/mL completely restored the sensitivity of TM91C235 cells to chloroquine.				
IT	246041-11-2P, 10-(4-Piperidin-1-ylbutyl)phenothiazine 443309-35-1P, 10-(4-Pyrrolidin-1-ylbutyl)phenothiazine				
RL	PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(claimed compd.; prepn. of aminobutylphenothiazines, -iminodibenzyls, and related compds. as chemosensitizing agents against chloroquine resistant plasmodium falciparum)				
RN	246041-11-2 CAPLUS				
CN	10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)				



RN 443309-35-1 CAPLUS
 CN 10H-Phenothiazine, 10-[4-(1-pyrrolidinyl)butyl]- (9CI) (CA INDEX NAME)



*Claimed
example*

L8 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 2002:868744 CAPLUS

DN 137:370096

TI Tricyclic N-(aminoalkyl)-substituted phenothiazines, iminodibenzyls, iminostilbenes, and diphenylamines, active as chemosensitizing agents against chloroquine-resistant *Plasmodium falciparum*, and methods of making and using thereofIN Lin, Ai J.; Guan, Jian; Kyle, Dennis E.; Milhous, Wilbur K.

PA United States Army Medical Research and Material Command, USA

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002089810	A1	20021114	WO 2001-US14574	20010507
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI WO 2001-US14574 20010507

OS MARPAT 137:370096

AB Title compds. I and pharmaceutically acceptable salts or prodrugs thereof are disclosed [wherein: X is a substituted or unsubstituted alkyl, a heteroatom, or 2 H atoms; n is 4, 5, or 6; Y is a substituted or unsubstituted alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, or NR₁R₂; wherein R₁ and R₂ are each independently, H, a heteroatom, substituted or unsubstituted alkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; and wherein each ring structure is independently substituted or unsubstituted]. Also disclosed are chemosensitizing agents and methods of modulating, attenuating, reversing, or affecting a cell's or organism's resistance to a given drug such as an antimalarial. In particular, a group of compds. I were prep'd. and shown to have improved anti-MDR (multidrug resistance) efficacy and reduced side effects (no data) in restoration of the clin. efficacy of antimalarials including mefloquine and chloroquine. Four of the compds. also showed moderate intrinsic antimalarial activity in the absence of chloroquine or mefloquine. Structure-activity relationships, e.g., regarding alkyl chain length, ring rigidity, and amino terminal size, are discussed. For instance, 4-chloro-1-butanol was converted to the THP ether (99%) and then used to N=alkylate phenothiazine (46%), followed by deprotection (100%), conversion of the resultant alc. to a chloride with SOCl₂ (62%), and amination of the chloride (34%) to give the pyrrolidine deriv. II. At 50 ng/mL in vitro, II completely restored the sensitivity of TM91C235 cells [a highly drug-resistant malaria isolate from Thailand] to chloroquine, giving 99% cell growth suppression/inhibition. When tested on a different clone of *Plasmodium falciparum*, II gave superior MDR-reversing activity, with a fractional inhibitory concn. (FIC) of 0.21, using a 1:1 combination of chloroquine and II.

IT 246041-11-2P, 10-[4-(Piperidin-1-yl)butyl]phenothiazine

443309-35-1P, 10-[4-(Pyrrolidin-1-yl)butyl]phenothiazine

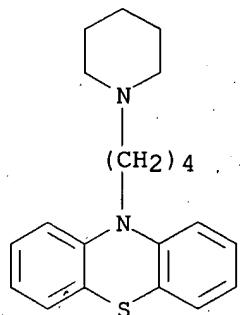
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of phenothiazines, iminodibenzyls, iminostilbenes, and diphenylamines as antimalarial sensitizing agents for treatment of multidrug-resistant malaria with chloroquine and mefloquine)

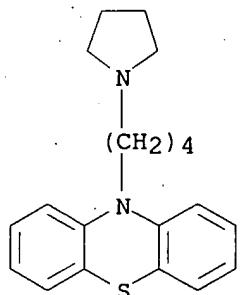
RN 246041-11-2 CAPLUS

CN 10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)



RN 443309-35-1. CAPLUS

CN 10H-Phenothiazine, 10-[4-(1-pyrrolidinyl)butyl]- (9CI) (CA INDEX NAME)

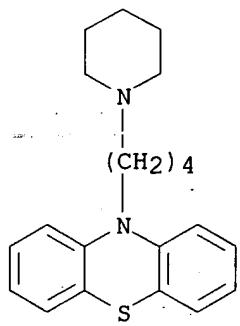


RE.CNT 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

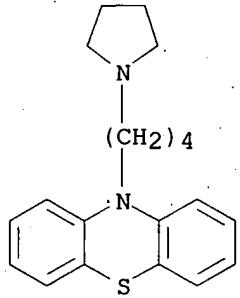
L8 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:372411 CAPLUS
 DN 137:109247
 TI Design, Synthesis, and Evaluation of New Chemosensitizers in
 Multi-Drug-Resistant Plasmodium falciparum
 AU Guan, Jian; Kyle, Dennis E.; Gerena, Lucia; Zhang, Quan; Milhous, Wilbur
 K.; Lin, Ai J.
 CS Division of Experimental Therapeutics, Walter Reed Army Institute of
 Research, Silver Spring, MD, 20910, USA
 SO Journal of Medicinal Chemistry (2002), 45(13), 2741-2748
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 137:109247
 AB A series of new chemosensitizers (modulators) against chloroquine-resistant Plasmodium falciparum were designed and synthesized in an attempt to prep. modulators with enhancing drug-resistant reversing efficacy and minimal side effects. Phenothiazine, iminodibenzyl, and iminostilbene arom. amine ring systems I ($X = S$, CH_2CH_2 , $CH:CH$; $n = 4-6$; $R_1, R_2 = Me, Et, PhCH_2$; $R_1R_2N = pyrrolinyl$) and diphenylamines II ($R_1 = R_2 = Et, R_1R_2N = pyrrolinyl$) were examd. Various tertiary amino groups including either noncyclic or cyclic aliph. amines were introduced to explore the steric tolerance at the end of the side chain. The new compds. showed better drug-resistant reversing activity in chloroquine-resistant than in mefloquine-resistant cell lines and were generally more effective against chloroquine-resistant P. falciparum isolates from Southeast Asian (W2 and TM91C235) than those from South America (PC49 and RCS). Structure-activity relationship studies revealed that elongation of the alkyl side chain of the mol. retained the chemosensitizing activity, and analogs with four-carbon side chains showed superior activity. Furthermore, new modulators with phenothiazine ring exhibited the best chemosensitizing activity among the four different ring systems examd. Terminal amino function has limited steric tolerance as evidenced by the dramatic lose of the modulating activity, when the size of substituent at the amino group increases. The fractional inhibitory concn. (FIC) index of the best new modulator I ($X = S$, $n = 4$, $R_1R_2N = pyrrolinyl$) is 0.21, which is superior to that of verapamil (0.51), one of the best-known multi-drug-resistant reversing agents. Some of the analogs displayed moderate intrinsic in vitro antimalarial activity against a W-2 clone of P. falciparum.
 IT 246041-11-2P 443309-35-1P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. of antimalarial drug chemosensitizing aminoalkyl phenothiazines, benzazepines, and diphenylamines)
 RN 246041-11-2 CAPLUS
 CN 10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)

Diff Our Entity
not paid!



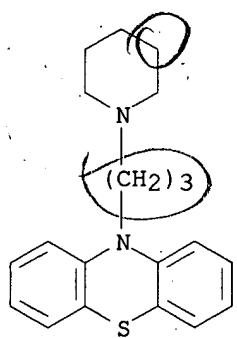
RN 443309-35-1 CAPLUS

CN 10H-Phenothiazine, 10-[4-(1-pyrrolidinyl)butyl]- (9CI) (CA INDEX NAME)



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1984:454884 CAPLUS
 DN 101:54884
 TI Tests of a piperidino mask for the protection of functionalized carbon sites in multistep syntheses
 AU Olofson, R. A.; Abbott, Duain E.
 CS Dep. Chem., Pennsylvania State Univ., University Park, PA, 16802, USA
 SO Journal of Organic Chemistry (1984), 49(15), 2795-9
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 OS CASREACT 101:54884
 AB Primary alkyl chlorides, e.g., I (R = Cl) were isolated in excellent yield after treatment of the appropriate N-alkylpiperidines, e.g., I (R = 1-piperidinyl) with ClCO₂CHClMe. A variety of alkylpiperidines, including systems with other sensitive functionalities, were converted to the resp. chlorides in yields varying from 90 to 97%. The potential significance of this process in drug congener prepn. and in total synthesis was outlined. Similar fragmentations of N-sec-alkylpiperidines were described.
 IT 3733-38-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (dealkylation of, with chloroethyl chloroformate, alkyl chloride by)
 RN 3733-38-8 CAPLUS
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1971:433427 CAPLUS

DN 75:33427

TI Metabolism in vitro of phenothiazine drugs

AU Hewick, D. S.; Beckett, A. H.

CS Dep. Pharmacol. Ther., Univ. Dundee, Dundee, UK

SO Biochemical Journal (1971), 122(5), 59p-60p

CODEN: BIJOAK; ISSN: 0264-6021

DT Journal

LA English

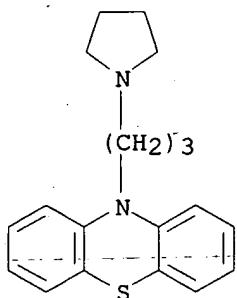
AB Chlorpromazine, trimeprazine, prochlorperazine, trifluoperazine, and 13 other phenothiazines underwent sulfoxidation and aromatic hydroxylation by the liver microsomal fraction from male rats. Compds. contg. N-Me or N-Et groups were N-dealkylated. Demethylation increased with increases in the length of the side chain but decreased on introducing electroneg. substituents into position 2 of the phenothiazine ring. N-Demethylation was almost doubled by the introduction of a branched-chain Me group .beta. to the side-chain N atom. Like chlorpromazine, all compds. with N,N-dimethylaminoalkyl side chains (except trimeprazine) were extensively N-oxidized. Trimeprazine was negligibly N-oxidized. The N,N-di-Et compds., unlike their Me analogs, were not N-oxidized. Incorporation of the side-chain N into a pyrrolidine or piperidine ring also virtually abolished N-oxidn. However, trifluoperazine and prochlorperazine were N-oxidized as extensively as chlorpromazine, the N-oxidn. of the perazines probably occurring at the N-methyl N atom.

IT 3733-37-7 3733-38-8

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(metabolism of, by liver microsomes)

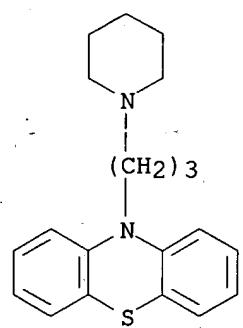
RN 3733-37-7 CAPLUS

CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 3733-38-8 CAPLUS

CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1966:429488 CAPLUS

DN 65:29488

OREF 65:5469a-d

TI Substituted phenothiazines

PA Sandoz Ltd.

SO 7 pp.

DT Patent

LA Unavailable

FAN.CNT 1

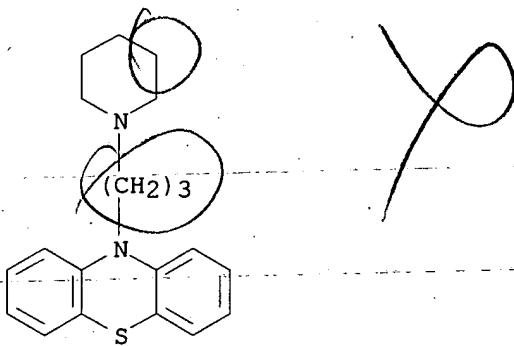
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 65010035		19660207	NL	
PRAI	CH		19640805		

AB The title compds. I, useful as neuroleptic and antidepressive agents, are prep'd. by known methods. Thus, a mixt. of 50 g. 3-methylthio-10-(3-chloropropyl)phenothiazine, 19.7 g. 4-hydroxypiperidine (II), 32.2 g. finely powd. K₂CO₃, and 250 ml. xylene is refluxed 20 hrs. with stirring to yield 3-methylthio-10-[3-(4-hydroxy-1-piperidyl)propyl]phenothiazine (III), b0.01 240-2.degree., m. 151-3.degree. (acetone). To a soln. of 10 g. III in 140 ml. abs. EtOH is added 1 equiv. alc. HCl, and the soln. cooled to 0.degree.. To this soln. is added in 2 hrs. dropwise with stirring a soln. of 2.74 g. 35.4% H₂O₂ in 10 ml. abs. EtOH. After another hr. at 0.degree., the mixt. is worked up to yield 3-methylsulfinyl-10-[3-(4-hydroxy-1-piperidyl)propyl] phenothiazine benzenesulfonate-EtOH (IV), m. 105-7.degree. (abs. EtOH). A mixt. of 30 g. 3-methylsulfinylphenothiazine, 537 g. finely powd. NaNH₂, and 200 ml. dry PhMe is refluxed 1 hr. with stirring. To this boiling mixt. is added dropwise in 30 min. a soln. of 22.6 g. 1-chloro-3-bromopropane in 25 ml. dry PhMe, and the mixt. refluxed 3 hrs. to yield crude 3-methylsulfinyl-10-(3-chloropropyl)phenothiazine, which is converted with II into IV as described for III.

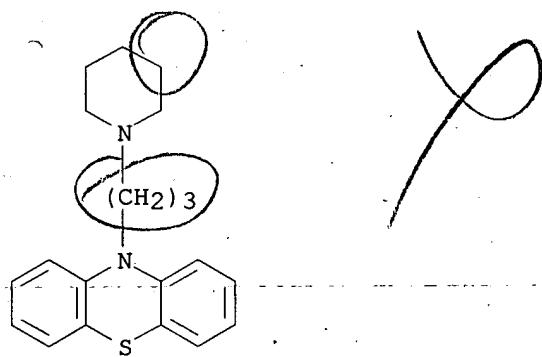
IT 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
(derivs.)

RN 3733-38-8 CAPLUS

CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



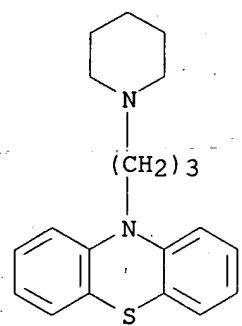
L8 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1964:457077 CAPLUS
 DN 61:57077
 OREF 61:9924f-h,9925a
 TI Intensity and duration of central nervous action of 2-acetylated phenothiazines and phenoxyazines
 AU Ribbentrop, A.; Schaumann, W.
 CS C. F. Boehringer Soehne G.m.b.H., Mannheim-Waldorf, Germany
 SO Archives Internationales de Pharmacodynamie et de Therapie (1964), 149(3-4), 374-84
 CODEN: AIPTAK; ISSN: 0003-9780
 DT Journal
 LA German
 AB Pharmacol. properties of phenothiazines and phenoxyazines with substituted and unsubstituted 10-piperidinopropyl side chains and their 2-acetylated derivs. (I-IV) (Stach, et al., CA 59, 8750a) were compared. In potentiation of the sedating effect of urethan in mice, the phenothiazines were 5-15 times more effective than the corresponding phenoxyazines. The acetylated compds. were more active than the nonacetylated, but the duration of their action was shorter. No regular variation in duration of action was observed. In inhibition of conditioned reactions in E3 rats (Maffii, CA 53, 14324a) also, the phenothiazines were the more potent, and the acetylated derivs. were more active than the nonacetylated. I-IV toxicities follow (R' and subcutaneous L.D.50 mg./kg. mice given): I: H, 1300; OH, 350; OMe, 1350; OEt, >2000; CH₂CH₂OH, 480. II: H, 820; OH, 470; OMe, >2000; OEt, >2000; CH₂C₂OH, 365. III: H, 930; OH, 480; OMe, 1000; OEt, >2000; CH₂CH₂OH, 518. IV: H, 820; OH, 465; OMe, 900; OEt, >2000; CH₂CH₂OH, 500.
 IT 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)- (nervous system depression by and toxicity of)
 RN 3733-38-8 CAPLUS
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1964:45767 CAPLUS
 DN 60:45767
 OREF 60:8041c-g
 TI 10-(Alkoxypropyl)phenothiazines
 IN Stach, Kurt; Thiel, Max; Rickelhaupt, Friedrich; Schaumann, Wolfgang
 PA C. F. Boehringer & Soehne G.m.b.H.
 SO 4 pp.
 DT Patent
 LA Unavailable

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1159954 BE 625227 FR 1344593 GB 966278		19631227	DE BE FR GB	19611125

AB The title compds. (Ia and their salts), where X is a halogen or an alkoxy or acyl radical and R an alkoxy group, have a psychotropic action.
 3-Acetyl-10-(.gamma.-chloropropyl)phenothiazine ethylene ketal (I) (32 g.), 14 g. pulverized K₂CO₃, 2 g. NaI, and 9 g. 4-methoxypiperidine refluxed 4 hrs. in 450 ml. Et₂CO, 7 g. K₂CO₃ added, the mixt. heated 4 hrs., filtered, the filtrate evapd., the residue dissolved in C₆H₆, extd. with 2N HCl, the ext. washed with C₆H₆, made alk. with dil. NaOH, the base taken up in C₆H₆, the ext. dried, evapd., the residue dissolved in Et₂O, and the HCl salt ppts. with ethereal HCl and recrystd. from iso-PrOH gave 19.2 g. Ia(X = Ac, R = OMe) HCl salt (II), m. 130.degree.. I(m.87.degree.) was prep'd. by treatment of 3-acetylphenothiazine ethylene ketal with CH₂BrCH₂CH₂Cl and NaNH₂ in liquid NH₃, evapn. of the NH₃, extn. of the residue with Et₂O, and recrystn. from Et₂O-ligroine.
 3-Methoxyphenothiazine (23 g.) in 150 cc. PhMe refluxed 3 hrs. with 4 g. NaNH₂, 19 g. 1-(.gamma.-chloropropyl)-4-methoxypiperidine (III) added, the mixt. refluxed 6 hrs., cooled, stirred with H₂O, then dil. HOAc, made alk. with soda, the sepd. oil taken up with Et₂O, the Et₂O soln. concd. to dryness over K₂CO₃, and the residue distd. in vacuo gave 23 g. Ia (X = R = OMe), b0.1 230-40.degree.. III (b13 123-6.degree.) was prep'd. by treatment of 4-methoxypiperidine with .gamma.-chloropropanol in the presence of K₂CO₃ and butanone, and treatment of the resulting 1-(.gamma.-hydroxypropyl)-4-methoxypiperidine (b0.2 85-8.degree.) with SOCl₂ and CHCl₃. 3-Chloro-10-(.gamma.-chloropropyl)phenothiazine (31 g.), 11.5 g. 4-methoxypiperidine, 14 g. K₂CO₃, 1 g. NaI, and 280 cc. butanone refluxed 10 hrs., the mixt. filtered, washed with butanone, the filtrate concd., the residue dissolved in dil. HOAc and extd. with Et₂O, the acid soln. made alk. and shaken with CH₂Cl₂, and the residue distd. in vacuo gave 33 g. Ia (X = Cl, R = OMe), b0.09 230-5.degree.. I (18.2 g.), 6.5 g. 4-ethoxypiperidine, 8 g. K₂CO₃, 1 g. NaI, and 200 ml. Et₂CO treated as in the prep'n. of II gave 11 g. Ia (X = Ac, R = OEt), b0.0001 233-40.degree.
 IT 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
 (derivs.)
 RN 3733-38-8 CAPLUS
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

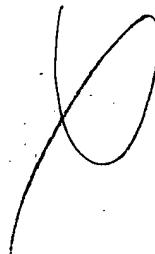
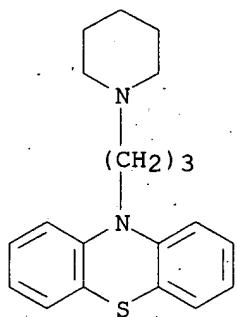


L8 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1963:448385 CAPLUS
 DN 59:48385
 OREF 59:8750a-h,8751a-f
 TI The development of psychotropic agents. IV. Diphenylamine derivatives with piperidyl-substituted side chains
 AU Stach, K.; Thiel, M.; Bickelhaupt, F.
 CS Firma C. F. Boehringer Soehne G.m.b.H., Mannheim-Waldhof, Germany
 SO Monatshefte fuer Chemie (1962), 93(5), 1090-1106
 CODEN: MOCMB7; ISSN: 0026-9247
 DT Journal
 LA German
 AB cf. CA 59, 6389e. A 4-piperidone HCl (1 mole) in 2 l. C6H6, 2 moles secondary alc., and 2 g. p-Me-C6H4SO3H was refluxed until no more H2O distd., the C6H6 soln. decanted, the residue treated with 1 l. CHCl3 and then with 120 g. K2CO3 and 120 ml. H2O with stirring, the CHCl3 layer sepd., the aq. soln. extd. several times with CHCl3, and the combined CHCl3 exts. evapd. to give I (R, R1, X, % yield, and b.p. given); H, H, CH2CH2, 80, b26 108-10.degree.; H, H, (CH2)3, 72, b20 118-20.degree.; H, H, CH2CHCH2OH, 58, b13 175-7.degree.; Me, H, CH2CH2, 28, b0.2 60-2.degree.; Me, Me, CH2CH2, 67, b0.2 50-2.degree.. A soln. of 0.1 mole substituted alkyl chloride and 0.12 mole I in 200 ml. butanone or Et2CO was treated with 0.15 mole alkali carbonate and 0.5 g. NaI, the mixt. refluxed 8-10 hrs.; filtered, the filtrate evapd. to dryness, the residue dissolved in Et2O, extd. at 0-10.degree. with 5-10% AcOH, the acid ext. alkalized, and extd. with Et2O to give II (R, X, Y, % yield, m.p. or b.p., and m.p. HCl salt given): H, (CH2)2, -, 67, 100-1.degree., 229-31.degree.; H, (CH2)3, -, 65, 82-4.degree., 154-5.degree.; H, (CH2)2, S, 81, 116-18.degree., 195.degree.; H, (CH2)2, S, 74, 132-3.degree., 193-4.degree.; H, (CH2)2, CH2OH, S, 37, 117-18.degree., -; H, (CH2)2, S (the piperidine ring is 2,6-Me2 disubstituted), 27, b0.2 278-82.degree., 140-1.degree.; Cl, (CH2)2, S, 83, b0.2 280-90.degree., 151-2.degree.; OMe, (CH2)2, S, 73, 80-2.degree., -; H, (CH2)2, O, 81, 103-5.degree., 212-13.degree.; H, (CH2)2, CH2CH2, 70, -, 205-6.degree.; H, (CH2)2, CH:CH, 69, 102-3.degree., 206-8.degree.. III (R and Y as for II) (0.1 mole) and 0.1 mole NaNH2 or NaH in 200 ml. abs. PhMe refluxed 4 hrs., treated with 0.1 mole 1-(3-chloropropyl)-4-piperidone ethylene ketal, refluxed 6-8 hrs., decompd. with H2O, extd. with dil. AcOH, and worked up as usual also gave II. 1-(2-Ethoxycarbonylethyl)-4-piperidone-HCl (26 g.), 9 g. glycol, 300 ml. abs. C6H6, and 0.5 ml. concd. H2SO4 refluxed until no more H2O was collected, the mixt. cooled to 0.degree., poured into concd. Na2CO3 soln., the C6H6 sepd., washed with H2O, dried, and distd. gave 82% the ethylene ketal (IV), b0.2 113-16.degree.; HCl salt m. 159-60.degree.. IV in Et2O reduced with LiAlH4 gave 85% 1-(3-hydroxypropyl)-4-piperidone ethylene ketal (V), m. 86-7.degree., also prep'd. in 72% yield by refluxing 42.5 g. 4-piperidone ethylene ketal, 26.3 g. trimethylene chlorohydrin, 50 g. K2CO3, 1 g. NaI, and 250 cc. Et2CO 10 hrs. V with SOCl2 in refluxing C6H6 gave 97% 1-(3-chloropropyl)-4-piperidone ethylene ketal, b0.6 121-5.degree.; HCl salt m. 191-2.degree.. II.HCl dissolved in 10-15 parts H2O, treated with 2N HCl to Congo red, refluxed 8-12 hrs., alkalized, and extd. with Et2O or CH2Cl2 gave the free ketone (R, Y, % yield, m.p. or b.p., and m.p. HCl salt given): H, -, 78, -, 169-70.degree. (monohydrate); H, S (Va), 81, 78-80.degree., 88-90.degree. (monohydrate); H, S (the piperidine ring is 2,6-Me2 disubstituted), 92, -, 152-3.degree., Cl, S, 85, -, 102-4.degree. (monohydrate); OMe, S, 67, 93-5.degree., 80-90.degree. (monohydrate); H, O, 58, 86.degree., 190-2.degree.; H, CH2CH2, 75, b0.4 243-8.degree., 91-199.degree. (sic) (monohydrate); H, CH:CH, 60, 87-8.degree., 94-6.degree. (monohydrate). The free ketone was

reduced with Raney Ni in MeOH, with LiAlH₄ in Et₂O, or with NaBH₄ in MeOH to the 4-piperidinol analog (R, Y, % yield, m.p., and m.p. HCl salt given): H, -, 70, 92-3.degree., 233-4.degree.; Ac, -, 55, -, 192-3.degree. H, S, 82, -, 191-2.degree.; Cl, S, 70, 92-3.degree., -; OMe, S, 66, 93-4.degree., -; Ac, S, 82, -, 167-8.degree.; MeCHOH, S, 72, 155-6.degree., -; H, O, 79, -, 256-8.degree.; acetyl ethylene ketal, O, 65, 107-8.degree. -; Ac, O, 75, -, 240-2.degree.; H, CH₂CH₂, 73, -, 197-8.degree.; H, CH:CH, 60, -, 208-10.degree.. To a soln. of 3.5 g. Na in 350 cc. liquid NH₃ in the presence of 0.5 g. FeCl₃.6H₂O was added 28.5 g. 2-acetylphenotheniazine ethylene ketal, the mixt. stirred 1 hr., treated with 1-chloro-3-bromopropane, stirred 5 hrs., treated with 300 cc. Et₂O, and allowed to evap. overnight gave 44-50% 2-acetyl-10-(3-chloropropyl)phenotheniazine ethylene ketal (VI), m. 87-9.degree.. VI (22 g.), 7.3 g. 4-piperidinol, 17 g. K₂CO₃, 1.1 g. 82% NaI, and 280 cc. Et₂CO refluxed 8 hrs. under N gave 82% 2-acetyl-10-[3-(4-hydroxypiperidino)propyl]phenotheniazine (VII) as HCl salt, m. 159-60.degree.. reduced with NaBH₄ in alk. MeOH to the 2-(1-hydroxyethyl) analog of VII. m. 155-6.degree., in 72% yield. Treating 2-acetylphenotheniazine ethylene ketal with NaNH₂ in liquid NH₃ and then with 1-chloro-3-bromopropane as above gave 54% 2-acetyl-10-(3-chloropropyl)phenotheniazine (VIII) ethylene ketal, m. 82-4.degree. (Et₂O-ligroine), hydrolyzed with alc. aq. HCl to 13-20% VIII, m. 90-3.degree.. VIII ethylene ketal, 4-piperidinol, K₂CO₃, and NaI in butanone as above gave 65% 3-(4-hydroxypiperidyl)propyl analog, m. 107-8.degree., hydrolyzed with 2N HCl to 75% 2-acetyl-10[3-(4-hydroxypiperidyl)propyl]phenotheniazine, m. 164-5.degree.; HCl salt m. 239-41.degree. (alc.). 4-Methoxypyridine (140 g.), 10 cc. MeOH, and 10 cc. H₂O with 0.5 g. Ru2O₄ under an initial pressure of 150 atm. H was slowly heated to 140.degree., at which temp. redn. began. The temp. was kept below 150.degree. by cooling, redn. continued for 4 hrs., and the mixt. worked up to give 70-75% 4-methoxypiperidine, b. 163-6.degree.. Similarly were prep'd. 4-ethoxy-(b. 174-6.degree.), 4-propoxy-(b. 196-8.degree.), and 4-isopropoxypiperidine, b. 184-6.degree.. By methods used for the prep'n. of II were prep'd. the following IX (R, R₁, Y, % yield, m.p. or b.p., and m.p. HCl salt given): H, OMe, -, 70, 94-6.degree., -; H, OEt, -, 62, 66-7.degree., 180-1.degree.; Ac, OMe, 75, -, 100-5.degree. Ac, OEt, -, 72, -, 195-6.degree.; H, OMe, S (X), 75, -, 156-8.degree. H, OEt, S, 68, -, 156 7.degree.; H, iso-PrO, S, 74, 155-7.degree.; H, PrO, S, 50, -, 156-8.degree.; Cl, OMe, S, b0.05 230-5.degree., -; OMe, OMe, S, 64, b0.1 235-40.degree., -; Ac, OMe, S, 83, -, 130-1.degree.; MeCHOH, OMe, S, 89, -, 124-6.degree.; Ac, OEt, S, 54, 233-40.degree./10-3 mm., -; H, OMe, O, 61, 45-7.degree., 192-3.degree.; H, OEt, O, 55, 58-60.degree., 198-200.degree.; Ac, OMe, O, 70, -, 177-9.degree.; Ac, OEt, O, 70, -, 198 200.degree.; H, OMe, CH₂CH₂, 60, -, 172-4.degree.; H, OMe, CH:CH, 63, -, 181-2.degree.. To a soln. of 13 g. IX (R = H, R₁ = OH, Y = S) and 10 g. (iso-PrO)₃Al in 100 cc. abs. dioxane was added over 8 hrs. CH₂N₂-Et₂O (from 36 g. nitrosomethylurea). After several hrs. stirring, the soln. was poured into 2N HCl, the aq. layer alkalized, extd. with Et₂O, Et₂O distd., the residue dissolved in alc., and treated with (CO₂H)₂ to give 70% X oxalate, m. 185-6.degree.. To 200 cc. liquid NH₃, 5.8 g. NaNH₂, and 20 g. 2-acetylcarbazole in 100 cc. tetrahydrofuran (THF) stirred 1 hr. was added 22 g. 1-chloro-3-bromopropane and the mixt. stirred 6 hrs. with dry ice-cooling to give 57% 2-acetyl-9-(3-chloropropyl)carbazole, m. 99-101.degree.. To a hot soln. of 2.6 g. NH₂OH.HCl in 50 cc. EtOH was added 10 g. Va to give 96% the oxime-HCl, m. 228-30.degree.; free base m. 112-14.degree.. Redn. of the oxime in THF with LiAlH₄ gave 70% 1-[3-(10-phenotheniazinyl) propyl]-4-aminopiperidine-2HCl (XI), m. 266-8.degree.. Va (10 g.) in 100 cc. MeOH was satd. with MeNH₂ and then

reduced with Raney Ni to give 76% the 4-methylamino analog of XI, m. 263-4.degree.. Similarly, with NH₃, was prep'd. XI. Redn. of 9.7 g. 1-[3(10-phenothiazinyl)propyl]-4-dimethylaminopyridinium chloride and 1 g. NaOH in 10 cc. MeOH with 8 g. NaBH₄ in MeOH gave 82% 4-dimethylamino analog of XI, m. 284-6.degree.. 4-(2-Hydroxyethyl)piperidine (150 g.) and 500 cc. EtOH in the presence of 3 g. RuO₂ was reduced in an autoclave at 90.degree. and 160-90 atm. H for 80 hrs. to give 94% crude 4-(2-hydroxyethyl)piperidine (XIII), b0.2 101-11.degree.. By methods used for the prepn. of II, an alkyl chloride and XII gave the following IX (R₁ = CH₂CH₂OH) (Y, R, % yield, m.p., and m.p. HCl salt given): -, H, 50, -, 188-9.degree.; -, Ac, 63, -, 100-3.degree.; S, H, 68, -, 182-3.degree.; S, Ac, 80, 98-100.degree., 100-10.degree.; O, H, 54, 109-10.degree., 150-2.degree.; O, Ac, 90, 114-15.degree., 215.degree.; O, acetyl ethylene ketal, 77, 106-7.degree. -. Similarly were prep'd. the following IX (R₁ = H) (Y, R, m.p. HCl salt, and % yield given): -, H, 221-3.degree., 74; -, Ac, 188-9.degree., 78; S, H, 176-7.degree., 40; S, Ac, 175-6.degree., 60; O, H, 199-200, & 70; O, Ac, 230-2.degree., 85 (prep'd. via the ethylene ketal, m. 80-1.degree.).

IT 99889-18-6, Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride
(prepn. of)
RN 99889-18-6 CAPLUS
CN Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride (7CI) (CA INDEX NAME)



● HCl

L8 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1963:14908 CAPLUS

DN 58:14908

OREF 58:2457d-h

TI Amine derivatives of phenothiazine

PA Rhone-Poulenc

SO 2 pp.; Addn. to Fr. 1,222,405

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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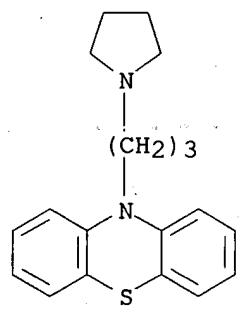
PI FR 72913 19600921 FR 19550622

AB Some tertiary amine derivs. of various N-3-aminopropylphenothiazines can be useful as industrial compds. The hydrochloride of I (X = 3-OMe, R = Me, R' = R'' = H) (8.4 g.) was dissolved in a mixt. of 150ml. MeOH and 45 g. 33% aq. H₂CO, 0.5 g. Adams Pt catalyst was added, and H introduced at ordinary temp. and pressure, when H absorption stopped the catalyst was filtered off, MeOH evapd. in vacuo, the residue taken up in CHCl₃, the CHCl₃ soln. washed with H₂O and dried, and the solvent evapd. to give I (X = 3-OMe, R = R' = R'' = Me), m. 116-18.degree. (C₇H₁₆ and Me₂CO), [.alpha.]_{20D} - 12.degree. (5%, CHCl₃). 3-Propylphenothiazine (15 g.) was dissolved in 75 ml. xylene, 2.94 g. NaNH₂ added, the mixt. refluxed for 1 hr., a soln. of 8.9 g. 1-dimethylamino-2-methyl-3-chloropropane in 40 ml. xylene was added over 15 min., the resulting mixt. refluxed for 17 hrs., the mixt. taken up in dil. H₂SO₄, the xylene layer sepd., the acid layer washed with Et₂O, the acid soln. made alk. and extd. with Et₂O, the Et₂O evapd., and the residue distd. in vacuo to give 17 g. I (X = 3-Pr, R = R' = R'' = Me), b0.2 196.degree., maleic acid salt m. 133.degree.. (EtOAc). Similarly prep'd. was the 3-ethoxy analog, b0.2 175-86'; maleate m. 110.degree.. Fr. Addn. 72,914; 2 pp. Addn. to Fr. 1,222,405. Optically active I (X = 3-Et, R = Me, R' = R'' = H) was treated with H₂CO and H in MeOH in the presence of Adams Pt catalyst to give I (X = 3-Et, R = R' = R'' = Me), m. 136.degree. (EtOAc), [.alpha.]_{20D} - 11.5.degree. (4% MeOH). A racemic mixt. of 3-[N-(3-methoxyphenothiazinyl)]-2-methylpropionitrile was treated with Me₂NH, Pd on BaSO₄, and H to give I (X = 3-OMe, R = R' = R'' = Me), m. 102.degree.. Fr. Addn. 72,915, Sept. 21, 1960, Appl. Sept. 27, 1955; 3 pp. Addn. to Fr. 1,222,405. I (X = 3-OMe, R = R' = R'' = Me) (II) was converted to the 9,9-dioxo deriv., m. 110.degree., when treated with H₂O₂ and H₂SO₄. II was obtained when I (X = 3-OMe, R = R' = Me, R'' = H) was treated with aq. H₂CO and H in the presence of Adams Pt catalyst. 3-[N-(3-methoxyphenothiazinyl)]-2-methyl-1-methyl-formamidopropane was treated with LiAlH₄ in tetrahydrofuran to give II. II was obtained when 3-[N-(3-methoxyphenothiazinyl)]-2-methylpropyl p-tosylate was heated with Me₂NH and when N,N-dimethyl-3-[N-(3-methoxyphenothiazinyl)]-2-methylpropionamide was heated with LiAlH₄. 3-Methoxy-phenothiazine was treated with NaNH₂ and 2-methyl-3-chloropyrrolidinopropane to form I (X = 3-OMe, R = Me, R' = R'' = pyrrolidino), b0.4-177-90.degree., m. 98.degree. (EtOH); hydrochloride m. 182.degree.. The dimethylbenzylammonium bromide of II was prep'd. in EtOAc, m. 160.degree..

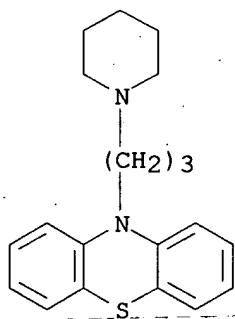
IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(derivs.)

RN 3733-37-7 CAPLUS

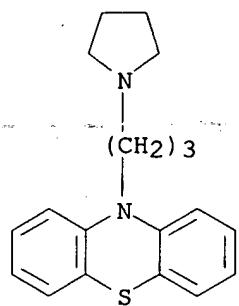
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1962:459195 CAPLUS
 DN 57:59195
 OREF 57:11788g-i
 TI Antiarrhythmic action of phenothiazine derivatives
 AU Sato, Tatsuo; Tanabe, Yoshinori
 CS Hokkaido Univ., Sapporo
 SO Japan. Circulation J. (1962), 26, 210-24
 DT Journal
 LA Unavailable
 AB Expts. in dogs demonstrated that intravenous injection of chlorpromazine (I) (1 mg./kg.) can stop ventricular extrasystole and tachycardia induced by thiopental and BaCl₂ soln. I or promazine was highly effective on clin. extrasystole, but no effects were observed on auricular fibrillation. From assessment of the antiarrhythmic activity of 21 phenothiazine derivs., a close relation was found between chem. structure and the effectiveness of the drugs. Among the drugs tested, 4695 RP was the most potent. The topical application of I resulted in immediate termination of ventricular tachycardia, but sympathetic blockade reduced the effect of I. Therefore, it was concluded that the antiarrhythmic action of I is dependent partly on its direct depressant action upon the foci and partly on its indirect action through sympathetic nerves. In the excitability of the dog heart, phenothiazine derivs. increase the threshold with min. influence on the refractory period.
 IT 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
 98845-25-1, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride
 (heart arrhythmia inhibition by)
 RN 3733-38-8 CAPLUS
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



RN 98845-25-1 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI)
 (CA INDEX NAME)



Same as before!

● x HCl

L8 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1962:46049 CAPLUS

DN 56:46049

OREF 56:8723d-i,8724a

TI Phenothiazine derivatives

IN Jacob, Robert Michel; Robert, Jacques G.

PA Societe des Usines Chimiques Rhone-Poulenc

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI DE 1092476 19590414

DE

PRAI FR 19580424

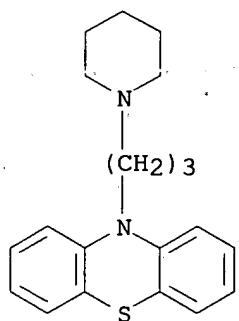
AB Derivs. of 10-(propylpiperidino)phenothiazine, which are therapeutically effective as antiemetics, analgetics, as tranquilizers, and for enhancing the effect of narcotics, are made by treating substituted propylphenothiazines with piperidine derivs. Thus, 3-methoxy-10-(3-chloropropyl)phenothiazine was refluxed in xylene with ethyl isonicotinate 15 hrs. to prep. 3-methoxy-10-[3-(4-carbethoxypiperidino)propyl]phenothiazine (I); oxalate m. 130-2.degree.. I (26 g.) in 100 cc. EtOH was heated in an autoclave with 200 cc. liquid NH₃ 7 hrs. to 200.degree.. The mixt. was evapd. to dryness, the residue dissolved in 200 cc. EtOAc, extd. with 100 cc. 0.7N methanesulfonic acid, the acid soln. filtered with active C, made alk., and extd. with Et-OAc. The solvent was evapd. in vacuo to obtain 12.5 g. 3-methoxy-10-[3-(4-carbamidopiperidino)propyl]phenothiazine, m. 132-4.degree., which was found in biol. tests to be more effective than 3-methoxy-10-(3-piperidinopropyl)phenothiazine. 3-Cyanophenothiazine was condensed with 1-chloro-3-bromopropane in liquid NH₃ with Na to obtain 3-cyano-10-(3-chloropropyl)phenothiazine (II), m. 139-40.degree.. II (10 g.) in 100 cc. EtOH was refluxed with 4.6 g. isonicotinamide in the presence of 3.5 g. anhyd. Na₂CO₃ 24 hrs., then with 1.75 g. more Na₂CO₃ 8 hrs., and with 1.75 g. more Na₂CO₃ 16 hrs. The solvent was evapd., the residue extd. from EtOAc soln. with 200 cc. N HCl, and after making the aq. soln. alk., it was extd. with EtOAc to obtain after evapn. of the solvent 4.3 g. 3-cyano-10-[3-(4-carbamidopiperidino)propyl] phenothiazine, m. 148-50.degree.(benzene and EtOH). By the same method were prep'd. 3-methylsulfonyl-10-(3-chloropropyl)phenothiazine, m. 132-4.degree., and from this 3-methylsulfonyl-10-[3-(4-carbamidopiperidino)propyl]phenothiazine, m. 170-1.degree., and similarly the corresponding 3-acetyl deriv., m. 176-7.degree.. By starting with 3-trifluoromethyl-10-(3-chloropropyl)phenothiazine, m. 74-6.degree., and nipecotinamide was obtained 3-trifluoromethyl-10-[3-(3-carbamidopiperidino)propyl]phenothiazine, m. 129-30.degree.. Similarly was made 3-methylthio-10-[3-(3-carbamidopiperidino)propyl]phenothiazine, m. 120-2.degree.. By starting with 3-methoxy-10-(3-chloropropyl)phenothiazine and 4-(diethylcarbamido)piperidine hydrochloride, m. 270-2.degree., that had been obtained by hydrogenation of 4-(diethylcarbamido)pyridine with Raney Ni at 100 atm. and 170.degree., was prep'd. 3-methoxy-10-[3-(4-diethylcarbamidopiperidino)propyl]phenothiazine hydrochloride, m. 150-4.degree.. Similarly was made from isonicotinyl chloride and morpholine 4-(morpholinocarbonyl)pyridine, m. 75-6.degree., and from this 4-(morpholinocarbonyl)piperidine and its HCl salt, m. 305.degree., and from this 3-methoxy-10-[3-(4-morpholinocarbonylpiperidino)-2-methylpropyl]phenothiazine, m. 168-72.degree..

IT 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-(derivs.)

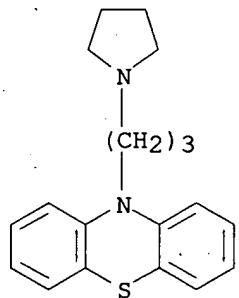
RN 3733-38-8 CAPLUS

09/849,400 (Patel)

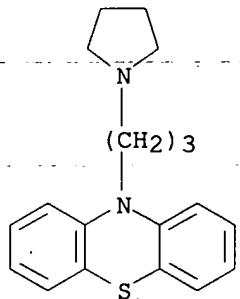
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



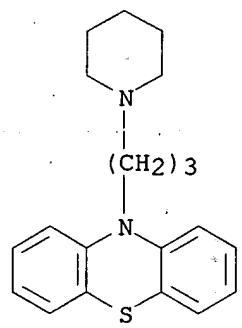
L8 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1962:41830 CAPLUS
 DN 56:41830
 OREF 56:7941d-e
 TI Action of derivatives of phenothiazine on the in vitro multiplication of plant and animal cells and microorganisms
 AU Loddo, B.; Zanda, G. E.
 CS Univ. Cagliari, Italy
 SO Archives Internationales de Pharmacodynamie et de Therapie (1961), 133, 1-9
 CODEN: AIPTAK; ISSN: 0003-9780
 DT Journal
 LA Unavailable
 AB Fargan, Largactil, Antipar, 4695 RP, 4632 RP, 3015 RP, and 4070 RP inhibited the growth of *Bacillus anthracis* and *Staphylococcus aureus* at 1-6 .gamma./ml. The minimal inhibitory concn. for *Escherichia coli* was higher than 50 .gamma./ml. The elongation of the root tip of *Lupinus albus* was inhibited by RP 4670, 20 .gamma./ml.; Largactil and RP 3300, 33; RP 4695, 50; Antipar, Fargan, and RP 4632, 66; and RP 3015 and RP 2987, 100. All tested compds. inhibited the multiplication of HeLa, monkey kidney, and ox kidney cells in vitro at between 3 and 33 .gamma./ml. Polio and vaccinia viruses were inhibited at higher concns.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 (cell growth inhibition by)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



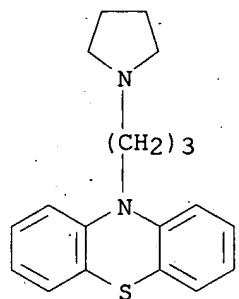
L8 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1961:105874 CAPLUS
 DN 55:105874
 OREF 55:19932f-i
 TI Phenothiazine derivatives. XVI. Preparation of amino substituted phenothiazines by reductive amination with LiAlH₄
 AU Hromatka, O.; Prostler, G.; Sauter, F.
 CS Univ. Vienna
 SO Monatshefte fuer Chemie (1960), 91, 590-4
 CODEN: MOCMB7; ISSN: 0026-9247
 DT Journal
 LA Unavailable
 AB 10-Phenothiazinepropionic acid (I) or its ethyl ester (II) was reduced with LiAlH₄ (III) in the presence of secondary amines to a series of 10-(.gamma.-aminopropyl)phenothiazines (IV). The reaction conditions were much milder than those of U.S. 2,820,031 (CA 52, 3873e) so that IV were probably not formed from the corresponding amides as intermediates. II (20 g.) was added in 3 hrs. to 6 g. III in 400 ml. abs. Et₂O, refluxed 3 hrs., and distd. in vacuo to give 16 g. 10-(.gamma.-hydroxypropyl)phenothiazine (V); phenylurethan of V, m. 114-15.degree. (alc.); 3-nitrophthalate of V, m. 195-8.degree. (alc.), green crystals. II (10 g.) in 100 ml. Et₂O was added in 2 hrs. to 4 g. III in 50 ml. Et₂O to which 9 g. morpholine (VI) in 50 ml. Et₂O had been dropped to give 1.4 g. 10-(.gamma.-morpholinopropyl)phenothiazine (VII) by distn. in vacuo. VII was also prep'd. by adding 20 g. abs. VI to 2 g. III under gentle heating, 10 g. more VI added, and 5 g. II added at 110.degree. to give 0.9 g. VII. Similarly were prep'd. from II, III, and the following secondary amines, the corresponding IV; pyrrolidine, piperidine, N-ethylpiperazine, benzylpiperazine, and N-methylpiperazine which gave 10-(.gamma.-N-methylpiperazinylpropyl)phenothiazine, m. 51-2.degree.. I or II (5 g.) heated with 20 g. VI for 5 hrs. at 130.degree. gave only I on isolation of the reaction products. No phenothiazinepropionamide was found.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
 (prepn. of)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



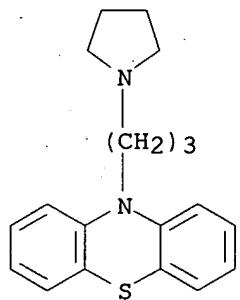
RN 3733-38-8 CAPLUS
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1961:83172 CAPLUS
 DN 55:83172
 OREF 55:15743b
 TI Pharmacological research on a series of alkyl-substituted amine derivatives of dibenzo-p-thiazine. VI. Action on the brain protein picture
 AU Tonini, G.; Missere, G.; Murari, G.
 CS Univ. Bologna
 SO Bollettino - Societa Italiana di Biologia Sperimentale (1958), 34, 1073-4
 CODEN: BSIBAC; ISSN: 0037-8771
 DT Journal
 LA Unavailable
 AB The changes produced in brain proteins are not assocd. with structural changes in the drugs studied.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 (effect on proteins in blood serum and brain)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1961:83170 CAPLUS
 DN 55:83170
 OREF 55:15742i,15743a
 TI Pharmacological research on a series of alkyl-substituted amine derivatives of dibenzo-p-thiazine. IV. Action on the serum proteins of the rat
 AU Murari, G.; Missere, G.; Tonini, G.
 CS Univ. Bologna
 SO Bollettino - Societa Italiana di Biologia Sperimentale (1958), 34, 1069-71
 CODEN: BSIBAC; ISSN: 0037-8771
 DT Journal
 LA Unavailable
 AB cf. CA 53, 20552g. The drugs studied had a slight tendency to decrease the albumin and the .alpha.- and .gamma.-globulins and the albumin/globulin ratio. There was a const. tendency to increase the .beta.-globulins. The total blood protein was not changed significantly.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 (effect on proteins in blood serum and brain)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1961:43339 CAPLUS

DN 55:43339

OREF 55:8437f-h

TI 10-(Pyrrolidinoalkyl)phenothiazines

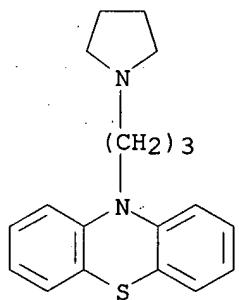
PA Societe des usines chimiques Rhone-Poulenc

DT Patent

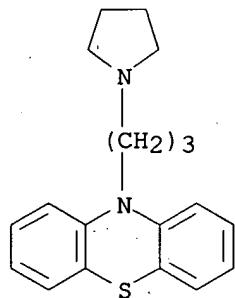
LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1167631		19581127	FR	
AB	Pyrrole (I) (20.1 g.) was added dropwise over 20 min. with vigorous stirring to 11.7 g. K in 75 cc. anhyd. xylene, the suspension heated 1 hr., a further 6 g. I added, the mixt. refluxed 15 min., cooled to room temp., 55.1 g. 10-(3-chloropropyl)phenothiazine and 1 g. NaI added in one portion, the mixt. refluxed 18 hrs., cooled, washed with H ₂ O, and worked up to give 35.5 g. 10-(3-pyrrolidinopropyl)-phenothiazine, m. 110-11.degree. (iso-PrOH).				
IT	3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (prepn. of)				
RN	3733-37-7 CAPLUS				
CN	Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)				



L8 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1960:113452 CAPLUS
 DN 54:113452
 OREF 54:21651b-d
 TI Photodynamic action of phenothiazine derivatives
 AU Prino, G.; Santamaria, L.
 CS Univ. Milan
 SO Bollettino Chimico Farmaceutico (1960), 99, 355-60
 CODEN: BCFAAI; ISSN: 0006-6648
 DT Journal
 LA Unavailable
 AB The intensity of the photodynamic action in tests on paramecia depended much on the substrate used. At a concn. of 10-6M, introduction of a MeO group in the phenothiazine ring reduced the effect. Increasing the no. of C atoms in the side chain from 2 to 3 usually increased the activity. Depolymerization of mucin showed that all phenothiazines can be divided into those with high and low activity. The lower activity was found in compds. with 2 C atoms between phenothiazine and amine N. Introduction of Cl caused only a slight redn. in the action on mucin; the MeO group had no effect. In blood serum, electrophoretic variations did not always agree with other tests.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 (photodynamic action of)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
 NAME)



L8 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1959:114541 CAPLUS

DN 53:114541

OREF 53:20552f-h

TI Pharmacology of a series of alkylamine derivatives of phenothiazine. II.

Action on basal metabolism in the rat

AU Tonini, G.; Dall'Olio, G.

CS Univ. Bologna, Italy

SO Farmaco, Edizione Scientifica (1958), 13, 611-18

CODEN: FRPSAX; ISSN: 0430-0920

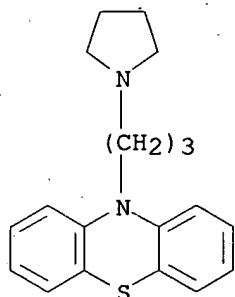
DT Journal

LA Unavailable

AB Chlorpromazine increased the O consumption during the first part of its action. Amino derivs. of phenothiazine have quite variable effects on metabolic rate which as a rule are not related to the sedative action. 10-(3-Dimethylamino-2-methylpropyl)phenothiazine and 2-methoxy-10-(3-dimethylamino-2-methylpropyl)phenothiazine do not inhibit the metabolism; but 2-chloro-10[3-(4-methylpiperazinyl)propyl]phenothiazine, which is a strong sedative, depresses O consumption. No relation was found between the metabolic actions and antihistaminic effects.

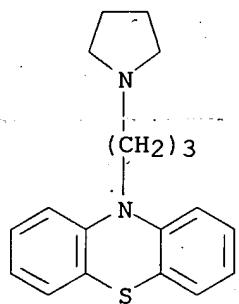
IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(effect on basal metabolism)

RN 3733-37-7 CAPLUS

CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)

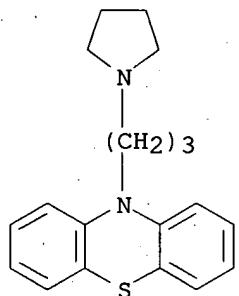
L8 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1959:62720 CAPLUS
 DN 53:62720
 OREF 53:11417g-i,11418a-b
 TI Phenothiazines
 IN Jacob, Robert M.; Robert, Jacques G.
 PA Societe des usines chimiques Rhone-Poulenc
 DT Patent
 LA Unavailable
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE. 940829		19560329	DE		
AB	1-(or 3-) Alkyl (or alkoxy)phenothiazine is treated with a dialkylaminopropyl or pyrrolidinopropyl halide to give the N-phenothiazine deriv., alternatively, a N-(halopropyl)phenothiazine deriv., can be treated with NHMe ₂ or pyrrolidine. The obtained products increase the action of anaesthetic and analgetic drugs. The starting material is obtained by cyclization of 3-alkyl (or 3-alkoxy)diphenylamines with S; the resulting mixt. of 1- and 3-alkyl(or alkoxy) phenothiazines can be used without or after sepn. of the isomers. Thus, 3-methyldiphenylamine and S were condensed to give methylphenothiazine (I) (m. 187-8.degree.); I (10.6 g.), xylene (40 g.), and 90% NaNH ₂ (2.53 g.) were mixed, treated within 1 hr. with refluxing with a mixt. of 8 g. 3-dimethylamino-1-chloropropane and 8 g. xylene, allowed to cool, treated with 150 ml. H ₂ O, made slightly acidic (HCl), and sepd. from the xylene. The aq. liquor was made strongly alk. (NaOH), and extd. with Et ₂ O; the Et ₂ O-phase was distd. to give 10-(3'-dimethylaminopropyl-(1'))-(1-or 3-)methylphenothiazine, b0.1 186-8.degree.; HCl salt m. 194.degree.; yield 11.6 g. Similarly were prep'd. 10-(3'-pyrrolidinopropyl-1')-(1- or 3-)methylphenothiazine, b0.15 207-12.degree., oxalate m. 175.degree.; (1-or 3-) methoxyphenothiazine, m. 179-80.degree.; 10-(3'-dimethylamino-propyl-1')-methoxyphenothiazine, b. 211.degree.; methiodide m. 170.degree., oxalate m. 178-9.degree.; 10-(3'-pyrrolidinopropyl-1')-methoxyphenothiazine, b0.1 205-7.degree., HCl salt m. 143-5.degree.; 10-(2'-dimethylaminopropyl-1')-methoxyphenothiazine, b0.1 198-202.degree., HCl salt m. 170-95.degree.; (1- or 3-)ethoxyphenothiazine, m. 131-2.degree.; 10-(3'-dimethylaminopropyl-1')ethoxyphenothiazine, b0.15 212-16.degree., oxalate m. 157-8.degree.; (1- or 3-)butoxyphenothiazine m. 119-121.degree. and 10-(3'-dimethylaminopropyl-1')butoxyphenothiazine b0.15 202-5.degree., oxalate m. 154.degree.. Cf. Can. 472,002; Ger. 824,944 (C.A. 49, 2527a). IT 113929-04-7, Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]- 114421-44-2, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- 122871-96-9, Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]-, oxalate (prep'n. of) RN 113929-04-7 CAPLUS CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)					



D1-Me

RN 114421-44-2 CAPLUS
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)

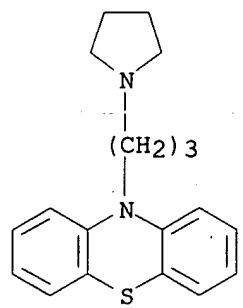


D1-O-Me

RN 122871-96-9 CAPLUS
CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]-, oxalate (6CI) (CA INDEX NAME)

CM 1

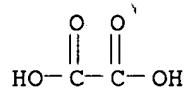
CRN 113929-04-7
CMF C20 H24 N2 S
CCI IDS



D1-Me

CM 2

CRN 144-62-7
CMF C2 H2 O4



L8 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1959:41064 CAPLUS

DN 53:41064

OREF 53:7404f-h

TI The effect of tranquilizing drugs on enzyme systems

AU Smith, Jackson A.; Carver, Michael J.; Helper, Eleanor W.

CS Univ. of Nebraska Coll. of Med., Omaha

SO American Journal of Psychiatry (1958), 114, 1011-14

CODEN: AJPSAO; ISSN: 0002-953X

DT Journal

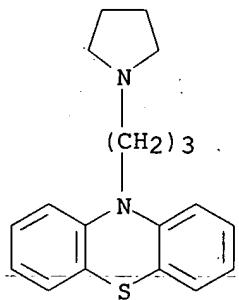
LA Unavailable

AB The effects of the various drugs on succinoxidase activity, as detd. by the manometric method of Schneider and Potter (C.A. 37, 57389), were studied in homogenates of rat liver and brain. The concns. (millimolar) of the drugs that produced 50% inhibition of the enzyme system in liver homogenates were: compazine, 0.27; chlorpromazine, 0.35; Wy 1137 [10-(3-pyrrolidinylpropyl)phenothiazine-HCl], 0.47; Wy 1107 [10-[3-(diethylamino)propyl]phenothiazine-HCl], 0.51; promazine, 0.61; phenergan, 0.68; reserpine, 1.9 (detd. by extrapolation, owing to low solv. of the drug); Mer 22 [1,2-diphenyl-1-(4-piperidyl)ethanol], 3.5; Mer 16 [.alpha.,.alpha.-diphenyl-1-methyl-2-piperidinethanol-HCl], 3.6; frenquel, 4.5; meratran, 5.6; and quiactin, 69. With rat-brain homogenates, the inhibition obtained with a given concn. of drug was about one-half that obtained with liver homogenates: no numerical data are given.

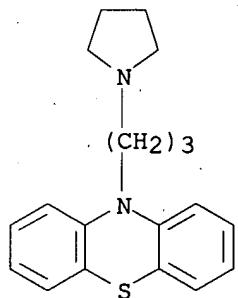
IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(succinic oxidase inhibition by)

RN 3733-37-7 CAPLUS

CN Phénothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



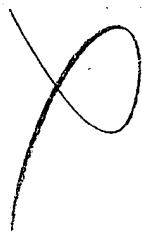
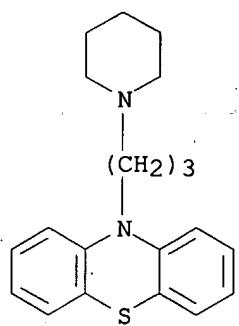
L8 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1959:18818 CAPLUS
 DN 53:18818
 OREF 53:3503a-b
 TI Effect of tranquilizing agents and related compounds on the succinoxidase system
 AU Helper, Eleanor Wixon; Carver, Michael J.; Jacobi, Herbert P.; Smith, Jackson A.
 CS Univ. of Nebraska Coll. of Med., Omaha
 SO Archives of Biochemistry and Biophysics (1958), 76, 354-61
 CODEN: ABBIA4; ISSN: 0003-9861
 DT Journal
 LA Unavailable
 AB The effect of 13 tranquilizing agents or their pharmacologically inactive analogs on the succinoxidase system was detd. The phenothiazine group of drugs inhibited the succinoxidase system most strongly and was followed closely by reserpine, the derivs. of phenylcarbinol being the least active. In all cases, cytochrome oxidase was more sensitive and succinic dehydrogenase less sensitive to inhibition than was the complete succinoxidase system. Brain succinoxidase was less sensitive to inhibition than was liver succinoxidase. Conclusion: Inhibition of succinoxidase is not related to the mechanism of action of tranquilizers.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 (effect on succinoxidase system)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1958:1942 CAPLUS
 DN 52:1942
 OREF 52:390e-i,391a-h
 TI 10-(3-Dimethylaminopropyl)-2-(trifluoromethyl)phenothiazine hydrochloride (VESPRIN) and related compounds. I
 AU Yale, Harry L.; Sowinski, Francis; Bernstein, Jack
 CS Squibb Inst. for Med. Research, New Brunswick, NJ
 SO J. Am. Chem. Soc. (1957), 79, 4375-9
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA Unavailable
 AB m-CF₃C₆H₄NHPh (506 mg.), 134 g. S, and 12.9 g. iodine fused 3.5 hrs. at 150-60.degree., the hot melt poured into 3.5 l. warm PhMe, the soln. heated to boiling, treated with Hyflo, and filtered hot, the filtrate cooled to -5.degree. and filtered, the filtrate concd. to 1/2 its vol. and filtered, and the filter residues combined yielded 261 g. 2-(trifluoromethyl)phenothiazine (I), m. 183-5.degree.; the filtrate from the 2nd crop distd. yielded 185 g. 4-isomer (II) of I, b0.5 172-5.degree., m. 72-3.degree. (ligroine). I (26.7 g.), 4.7 g. NaNH₂, 14.6 g. Me₂N(CH₂)₃Cl, and 500 cc. dry xylene refluxed 17 hrs. with stirring, yielded 30 g. 10-[Me₂N(CH₂)₃] deriv. (III) of I, b0.7 176.degree., n_{23D} 1.5780; HCl salt, m. 172-4.degree. (decompn.). Similarly were prep'd. the following 10-dialkylaminoalkyl derivs. (IV) of I (dialkylaminoalkyl group, % yield and b.p./mm. of base, and % yield and m.p. of HCl salt given): H₂N(CH₂)₂, 42, 176-8.degree./0.6, 48, 161-2.degree. (PhCl and then abs. iso-PrOH); Me₂NCHMeCH₂, 20, 166-9.degree./3, 41, 224-5.degree. (decompn.) (abs. EtOH-Et₂O); Et₂N(CH₂)₂, 56, 171-3.degree./0.5, 74, 160-2.degree. (C₆H₆); Et₂N(CH₂)₃ (V), 73, 167-70.degree./0.4, 79, 163-5.degree. (PhCl). The following IV of II: Me₂N(CH₂)₃, 79, 169-72.degree./0.3, 61, 146-7.degree. (PhCl-Et₂O); Me₂NCHMeCH₂, 77, 172-5.degree./0.4, 78, 196-7.degree. (dry PhCl); 3-pyrrolidinopropyl, 41, 176-9.degree./0.3, 35, 148-9.degree. (dry Me₂CO). 2-[2-Nitro-4-(trifluoromethyl)phenylthio]aniline (23.7 g.), 35 cc. Ac₂O, and 2.5 cc. pyridine heated 1.5 hrs. on the steam bath gave 24.9 g. 2-[2-nitro-4-(trifluoromethyl)phenylthio]acetanilide (VI), m. 148-9.degree. (iso-PrOH). Me₂CO (3.0 l.) added under N to 22 g. 85% KOH in 375 cc. 95% EtOH, stirred, and treated under N with 119.5 g. VI yielded the viscous gummy 10-Ac deriv. of 3-(trifluoromethyl)phenothiazine (VII), which refluxed 2 hrs. with 250 cc. 95% EtOH and 50 cc. concd. HCl, cooled, and filtered gave 86 g. VII, m. 214-16.degree.. VII (46.8 g.), 125 cc. CH₂:CHCN, and 2 cc. 40% Triton B refluxed 1 hr. yielded 34.7 g. 3-(trifluoromethyl)-10-phenothiazinepropionitrile (VIII), m. 110-11.degree. (Me₂CO). VIII (27.3 g.) reduced with 6.4 g. LiAlH₄ in 500 cc. dry Et₂O yielded 9.3 g. 10-[H₂N(CH₂)₃] deriv. (IX) of VII, b0.5 175-8.degree.. IX (9.2 g.) in 14.7 g. HCO₂H heated 8 hrs. at 90-100.degree. with 7 g. 37% formalin, cooled, and filtered, the filtrate treated with 30.4 cc. 0.955N aq. HCl and evapd. in vacuo, and the residue dissolved in 100 cc. H₂O and made alk. with 20% aq. NaOH yielded 10-[Me₂N(CH₂)₃] deriv. of VII, b0.3 168-71.degree.; HCl salt, m. 140-1.degree. (from PhMe), 66% yield. I (66.8 g.), 11.7 g. NaNH₂, and 750 cc. dry xylene refluxed 2 hrs., cooled, treated dropwise with 58.6 g. 2-tetrahydropyranyl 4-chlorobutyl ether in 250 cc. dry PhMe, refluxed 3.5 hrs., filtered hot, and distd. in vacuo, the residue extd. with 500 cc. Et₂O, and the ext. filtered and worked up yielded 97.8 g. 10-[4-(2-tetrahydropyranloxy)-1-butyl] deriv. (X) of I, b0.2 200-2.degree.. X (97.8 g.), 25 cc. concd. HCl, and 1 l. 75% EtOH refluxed 1 hr., the EtOH distd. off on the steam bath, and the residue extd. with Et₂O yielded 64.8 g. 10-[HO(CH₂)₄] deriv. (XI) of I, b0.3

178-81.degree.. XI (9.8 g.) in 65 cc. dry C₆H₆ treated dropwise with 3.6 g. SOCl₂ and refluxed 1 hr. gave 6.6 g. crude product, b0.7 182-5.degree., which dissolved in 25 cc. boiling hexane and cooled yielded 5.2 g. 10-[Cl(CH₂)₄] deriv. (XII) of I. Crude XII (5.0 g.) in 10 cc. anhyd. Me₂NH kept 7 days in a sealed tube at room temp., the excess Me₂NH evapd., the pasty residue dissolved in 50 cc. 10% HCl, the soln. washed with Et₂O, treated with excess 20% aq. KOH, and extd. with Et₂O, and the ext. worked up yielded 4.2 g. 10-[Me₂N(CH₂)₄] deriv. of I; HCl salt, m. 153-4.degree., 58% yield. Similarly were prep'd. the following IV of I (same data given): Me₂N(CH₂)₂, 84, -, 70, 245-6.degree. (from PHCl); 3-pyrrolidinopropyl, 100, -, 32, 173-4.degree. (xylene) (oxalate, m. 192-4.degree. with decompn., 100% yield). V (11.4 g.) in 100 cc. 95% EtOH treated with 2.7 g. (CO₂H)₂ in 10 cc. 95% EtOH yielded 14.1 g. oxalate, m. 192-4.degree. (decompn.); the oxalate in 250 cc. 95% EtOH and 100 cc. H₂O treated with 3.4 cc. 30% H₂O₂, refluxed 17 hrs., and concd. in vacuo yielded 100% oxalate of the 5-oxide (XIII) of V, m. 229-30.degree. (decompn.). XIII treated with warm 10% aq. NaOH and extd. with CHCl₃ gave XIII. Similarly was prep'd. the diethylamino analog of XIII, isolated as the HCl salt dihydrate, m. 150-2.degree. (decompn.), in 36% yield. V (11.4 g.), 100 cc. 95% EtOH, and 6.8 cc. 30% H₂O₂ refluxed 17 hrs. and evapd. to dryness, and the residue recrystd. from EtoAc or EtCOMe-hexane gave the 5,10-dioxide (XIV) of V, m. 136-8.degree. (decompn.); on standing the colorless crystals changed to deep yellow crystals; the crude XIV in 200 cc. boiling EtCOMe, cooled, treated with excess dry HCl in Et₂O, and filtered yielded 48% XIV.HCl, m. 182-4.degree. (decompn.) (glacial AcOH-Et₂O). II (40 g.), 75 cc. Ac₂O, and 4 cc. pyridine refluxed 4 hrs. gave 45.9 g. crude 10-Ac deriv. (XV) of II, m. 140-1.degree. (iso-PrOH). XV (30.3 g.), 33.3 g. 30% H₂O₂, 225 cc. glacial AcOH, and 25 cc. Ac₂O refluxed 4 hrs. and cooled yielded 19.7 g. 5,5-dioxide (XVI) of II, m. 275-6.degree. (aq. Cellosolve). XVI (14.1 g.) and 2.7 g. NaNH₂ in 250 cc. xylene condensed in the usual manner with 0.1 mole Me₂N(CH₂)₃Cl, filtered, and evapd. to dryness, and the residue (1.7 g.) recrystd. from PhMe yielded 1.4 g. 10-[Me₂N(CH₂)₃] deriv. (XVII) of XVI, m. 164-5.degree.. XVII (1.3 g.) in 25 cc. warm PhMe treated slowly with stirring with a slight excess of dry HCl in Et₂O gave 1 g. XVII.HCl, m. 240-1.degree. (from MeCN-Et₂O). III (9.7 g.) in 25 cc. MeCN treated with 3.28 g. (CO₂H)₂ in 10 cc. MeCN yielded 6 g. oxalate, m. 196-7.degree. (decompn.); the oxalate and 1.6 g. 30% H₂O₂ refluxed 5 hrs. in 150 cc. abs. EtOH and cooled yielded 5.5 g. oxalate (XVIII) of the 5-oxide (XIX) of III, m. 213-15.degree. (decompn.). The XVIII treated with warm 5% aq. NaOH and extd. with Et₂O, and the ext. dried, and treated with dry HCl in Et₂O gave 2.5 g. XIX.HCl, m. 203-5.degree.. III (15.4 g.), 150 cc. 95% EtOH, and 10 cc. 30% H₂O₂ refluxed 24 hrs. left 68% 5,10-dioxide trihydrate of III, very hygroscopic, m. 135-7.degree. with sintering at 80.degree. (EtCOMe). I (13.4 g.), 25 cc. AcCl, and 50 cc. Ac₂O refluxed 4 hrs. and concd. in vacuo on the steam bath, the viscous residue treated with 50 cc. glacial AcOH and 17 cc. 30% H₂O₂, heated gradually to boiling to initiate an exothermic reaction, and refluxed 4 hrs. gave 13.5 g. 2-(trifluoromethyl)phenothiazine 5,5-dioxide, m. 268-70.degree. (95% EtOH).

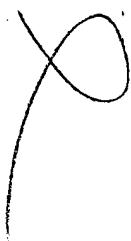
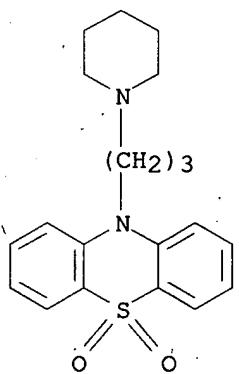
IT 99889-18-6, Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride
 110332-15-5, Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide
 (prepn. of)
 RN 99889-18-6 CAPLUS
 CN Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride (7CI) (CA INDEX NAME)



● HCl

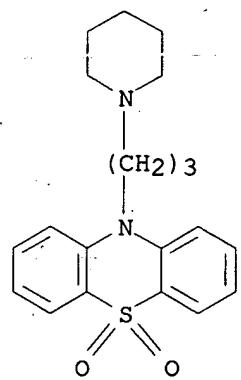
RN 110332-15-5 CAPLUS

CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide (6CI) (CA INDEX
NAME)

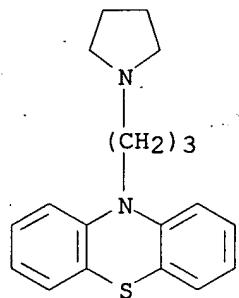


L8 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1958:1941 CAPLUS
 DN 52:1941
 OREF 52:389h-i,390a-e
 TI Phenothiazines. VII. Basically substituted 10-alkylphenothiazine
 9,9-dioxides
 AU Hromatka, O.; Sauter, F.; Preininger, E.
 CS Univ. Vienna
 SO Monatsh. Chem. (1957), 88, 354-62
 DT Journal
 LA Unavailable
 AB The sulfones IV heated many hrs. with secondary amines in an inert org. solvent in the presence of Cu powder as catalyst and anhyd. K₂CO₃ as halogen acid acceptor under strictly H₂O-free conditions gave piperazine derivs., R'AN.CH₂.CH₂.NZ.CH₂.CH₂ (R' = 9,9-dioxo-10-phenothiazinyl) (V), and simple basically substituted compds., R'ANR₂₂ (VI) (method a). Heating phenothiazine 9,9-dioxide (VII) with NaNH₂ and treating the Na compd. with haloalkyl bases also gave V and VI (method b). Anhyd. piperazine (5.5 g.), 3.0 g. K₂CO₃, and 0.5 g. Cu bronze powder in 30 ml. refluxing xylene stirred with addn. of 2.0 g. IVb in 3.5 hrs., the mixt. stirred 4 hrs. at 150.degree. (bath temp.), the cooled mixt. decanted and the soln. dild. with Et₂O, the cooled soln. filtered and the cryst. crude base washed with Et₂O, the dried product taken up in N HCl and combined with the HCl washings of the org. phase, the HCl ext. washed with Et₂O and filtered, the filtrate basified with 20% KOH and filtered, the washed ppt. dried over KOH at 11 mm. and crystd. from abs. alc. gave 81.4% V (A = CH₂CH₂, .ZETA. ≈ H), m. 150-2.degree.; di-HCl salt, m. 239-41.degree. (decompn.). Similarly, from the appropriate piperazine were prep'd. the corresponding piperazinoalkylphenazine 9,9-dioxides [compd., A, Z, % yield, m.p., and m.p. (decompn.) di-HCl salt given]: Vb, CH₂CH₂, Me, 54.8, 132-3.degree., 240-5.degree.; Vc, CH₂CH₂, Et, 87.1, 136-7.degree., 240-4.degree.; Vd, CH₂CH₂, CH₂CHMe₂, 36.8, 164-6.degree., 230-4.degree.; Ve, (CH₂)₃, Me, 75-9, 110-12.degree., 265-8.degree.; Vf, CH₂CHMe, PhCH₂, 19.7, 50-70.degree., 208-11.degree.. VII (3.5 g.) and 0.9 g. NaNH refluxed 3.5 hrs. with stirring in 10 ml. PhMe, the yellow suspension treated dropwise in 5 min. with 3.0 g. 1-(.beta.-chloroethyl)-4-ethyldipiperazine in PhMe, the mixt. refluxed 4 hrs. and dild. with 40 ml. C₆H₆, filtered hot and cooled filtrate extd. with 150 ml. 0.5N HCl, the ext. basified with 60 ml. 2N NaOH and the ppt. recrystd. from alc. gave Vc. IVb (3.0 g.), 2.5 g. HNEt₂, 3.0 g. K₂CO₃, and 0.5 g. powd. Cu refluxed 24 hrs. in 30 ml. xylene and the cooled mixt. dild. with Et₂O, the soln. treated with H₂O and the layers sepd., the org. phase extd. with 0.2N HCl, the acid phase and ext. filtered and kept at room temp., the cryst. product sepd. and dried over CaCl₂ at 11 mm. gave 2.6 g. HCl salt, converted by pptn. with 20% KOH and working up to give the base, 10-(.beta.-diethylaminoethyl)phenothiazine 9,9-dioxide (VIa). Similarly, by method a or b, were prep'd. the basically substituted alkylphenothiazine 9,9-dioxides [compd., A, NR₂₂, % yield, m.p., m.p. (decompn.) HCl salt, and method of prepn. given]: VIa, CH₂CH₂, NET₂, 67, 64.degree., 241-3.degree., a; VIb, (CH₂)₃, NET₂, 51, b0.01 170.degree., 234-6.degree., a; VIC, CH₂CHMe, NET₂, -, 103-6.degree., -, b; VID, CH₂CH₂, 1-pyrrolidinyl, 20.9, 166-9.degree., 265-8.degree., -; VIe, CH₂CH₂, piperidino, -, 146.5-7.5.degree., 205.degree., a; VIIf, (CH₂)₃, piperidino, 19.5, 186-9.degree., 251-6.degree., a,b.
 IT 110332-15-5, Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide
 (prepn. of)
 RN 110332-15-5 CAPLUS
 CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide (6CI) (CA INDEX)

NAME)



L8 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1957:26759 CAPLUS
 DN 51:26759
 OREF 51:5282f-g
 TI Antiproliferative and antitumoral action of derivatives of phenothiazine
 AU Paulesu, P.; Vargiu, L.
 SO Giorn. ital. chemioterap. (1956), 3, 103-5
 DT Journal
 LA Unavailable
 AB The substances RP 3300, 4695, 4632, and 3015 considerably inhibit the growth of the lupine root. RP 3300 is more active than colchicine. This substance and RP 4632 also inhibit the growth of grafts of Walker's carcinosarcoma.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 (effect on lupine roots and neoplasms)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2003 ACS.

AN 1957:26135 CAPLUS

DN 51:26135

OREF 51:5188c-e

TI Mechanism of the action of isonicotinic acid hydrazide, and its relation to the catalase power of microbacteria

AU Garattini, S.; Leonardi, A.; Moriguchi, Y. P.

SO Giorn. ital. chemioterap. (1956), 3, 85-103

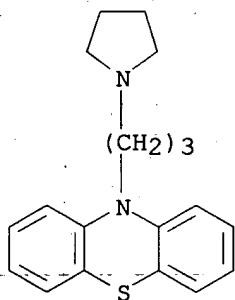
DT Journal

LA Unavailable

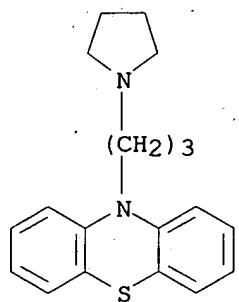
AB The relations between the chemotherapeutic and the catalase power of different tuberculous and paratuberculous strains were studied. Generally, a close relation exists between the resistance to isonicotinic acid hydrazide (I) and the loss in catalase power accompanied by increased sensitivity to H₂O₂. I and H₂O₂ can sometimes show some synergism. A culture of microbacteria in the presence of gradually increasing amounts of H₂O₂ is capable of developing resistance to H₂O₂, when starting either from normal strains or from I-resistant strains. The appearance of the resistance to H₂O₂ is accompanied by an increase in sensitivity to I, loss of catalase power, and decrease in the formation of ketone bodies (pyruvic acid) in the culture medium, similar to the occurrence in I-resistant strains. Some inhibitors of the antituberculous activity of I, such as hemin, Na pyruvate, Na diethyldithiocarbamate (to a lesser degree), thiourea, and KCNS can counteract also the toxic action of H₂O₂ for a mechanism of direct inactivation.

IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(bactericidal action of)

RN 3733-37-7 CAPLUS

CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)

L8 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1957:26134 CAPLUS
 DN 51:26134
 OREF 51:5188b-c
 TI Antibacterial activity in vitro of derivatives of phenothiazine
 AU Loddo, B.
 SO Giorn. ital. chemioterap. (1956), 3, 48-52
 DT Journal
 LA Unavailable
 AB Derivs. of phenothiazine in vitro inhibit growth of *Staphylococcus aureus* and *Bacillus anthracis*, even when blood serum is present. However, growth of gram-neg. bacteria is not affected.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 (bactericidal action of)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
 NAME)



L8 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1956:36302 CAPLUS

DN 50:36302

OREF 50:7154a-c

TI Phenothiazine derivatives

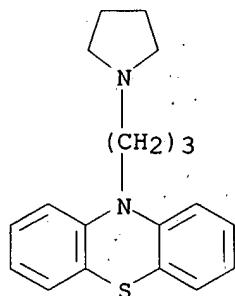
PA Societe des usines chimiques Rhône-Poulenc

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 724218		19550216	GB	
AB Phenothiazine derivs. are prep'd. by treating 3-substituted diphenylamines with S at elevated temps. where the substituent is a lower alkyl group. The reaction is best effected by heating a mixt. of the 2 reactants in the presence of a small quantity of iodine as catalyst at a temp. of not less than 140.degree. and preferably at 150-90.degree.. Thus are prep'd. 2-methylphenothiazine, m. 184-5.degree., and 4-methylphenothiazine, m. 114-15.degree.. Cf. preceding abstr.					
IT 114383-61-8, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride 114421-44-2, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (prepn. of)					
RN 114383-61-8 CAPLUS					
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI) (CA INDEX NAME)					

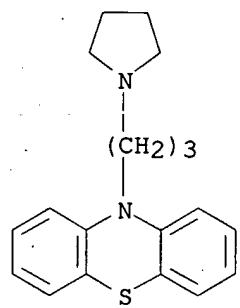


D1-O-Me

● HCl

RN 114421-44-2 CAPLUS

CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)



D1-O-Me

L8 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1956:36301 CAPLUS

DN 50:36301

OREF 50:7153h-i,7154a

TI Derivatives of phenothiazine

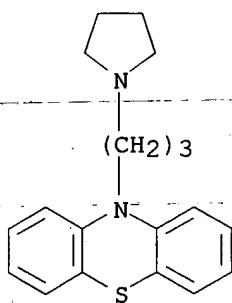
PA Societe des usines chimiques Rhone-Poulenc

DT Patent

LA Unavailable

FAN.CNT 1

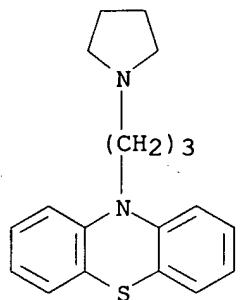
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 724217		19550216	GB	
AB	x, 10-RY(CH ₂) ₃ R' (I) are prep'd. where x = 2 or 4, R = alkyl or alkoxy, Y = the phenothiazine nucleus (C.A. numbering), and R' = an amino group. To 10.6 g. 2-MeY, m. 187-8.degree. (from S and 3-MeC ₆ H ₄ CH ₂ Ph), 40 g. xylene, and 2.53 g. 90% NaNH ₂ is added 8 g. Me ₂ N(CH ₂) ₃ Cl in 8 g. xylene during 1 hr. at reflux, refluxing continued 1 hr., the mixt. cooled, taken up in 150 cc. water, and slightly acidified with HCl, the org. layer decanted, the aq. layer made strongly alk. with caustic soda, and the base extd. with ether and distd. to yield 11.6 g. 2,10-MeY(CH ₂) ₃ NMe ₂ , b0.1 180-8.degree.; HCl salt, m. 194.degree.. I(x = 2, R = Me, R' = pyrrolidino) b0.15 207-12.degree.; oxalate, m. 175.degree.. The following I are also reported (x = 2 or 4, but not further specified; R and R' given): MeO, pyrrolidino, b0.1 205-7.degree. (HCl salt, m. 143-5.degree.); MeO, Me ₂ N, b0.1 198-202.degree. (HCl salt, m. 170-95.degree.); EtO, Me ₂ N, b0.15 212-16.degree. (oxalate, m. 157-8.degree.); BuO, Me ₂ N, b0.15 202-5.degree. (oxalate, m. 154.degree.); PrO, Me ₂ N, b0.15 211.degree. (oxalate, m. 178-9.degree.); MeI salt, m. 70.degree.). These compds. possess specific advantage as potentiators of general and local anesthetics and of analgesics. Cf. following abstr.				
IT	114383-61-8, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride 114421-44-2, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (prepn. of)				
RN	114383-61-8 CAPLUS				
CN	Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI) (CA INDEX NAME)				



D1-O-Me

HCl

RN 114421-44-2 CAPLUS
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA
INDEX NAME)



D1-O-Me

L8 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1954:60611 CAPLUS

DN 48:60611

OREF 48:10783e-h

TI (Aminoalkyl)phenothiazines

IN Dahlbom, J. R.

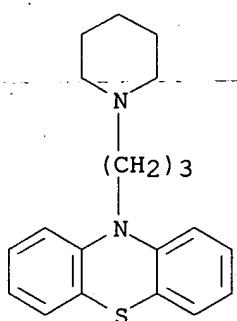
PA Aktiebolaget Astra Apotekarnes Kemiska Fabriker

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SE 134622		19520226	SE	
AB Compds. of the formula RXNR'R'', where R is a 10-phenothiazine residue, X is a straight- or branched-hydrocarbon chain, and R' and R'' are both alkyl groups or 1 is alkyl and the other H, or R' and R'' together with the N atom is a heterocyclic residue, are prep'd. by converting a 10-hydroxyalkyl to the corresponding haloalkyl compd., which is then treated with a mono- or dialkylamine or a heterocyclic compd. contg. at least 1 N atom in the ring. E.g., PBr ₃ is added to a soln. of 10-(2-hydroxypropyl)phenothiazine in CHCl ₃ , which is then washed and evapd. to dryness; the 10-(2-bromopropyl)phenothiazine formed is heated in C ₆ H ₆ under pressure with piperidine in the presence of Cu powder, and the 10-[2-(1-piperidyl)propyl]phenothiazine ppt'd. as the oxalate, m. 181-3.degree.; free base, m. 120-1.degree.; HCl salt, m. 255-6.degree.. The following 10-substituted phenothiazines are similarly prep'd.: [2-(1-pyrrolidyl)ethyl], b0.1 142-6.degree. (HCl salt, m. 199-200.degree.); [2-(1-pyrrolidyl)propyl], b0.1 155-60.degree. (HCl salt, m. 192-3.degree.); (2-dimethylaminopropyl), b0.2 158-60.degree., m. 59-60.degree.; [2-(1-piperidyl)ethyl], b0.3-0.4 240.degree., m. 43-4.degree.; (2-dimethylaminoethyl)phenothiazine (b. 160-5.degree./0.2 mm.); [.gamma.-(1-piperidyl)propyl] (b0.5 245-8.degree.); [2-(1-morpholyl)ethyl], (b0.1 188-90.degree., m. 73-5.degree.); (2-cyclohexylaminoethyl) (b0.7 199-201.degree.); [2-(4-thiamorpholinyl)propyl]; b0.05 165-70.degree.. Also, 3-methoxy-10-(3-diethylaminopropyl)phenothiazine, b0.25 236-9.degree., and 3-methoxy-10-[2-(4-morpholinyl)propyl]phenothiazine, b0.5 220-30.degree..					
IT 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)- (prepn. of)					
RN 3733-38-8 CAPLUS					
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)					



L8 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1954:60610 CAPLUS

DN 48:60610

OREF 48:10783c-d

TI (Aminoalkyl)phenothiazines

IN Dahlbom, J. R.; Sjogren, B. K. F.

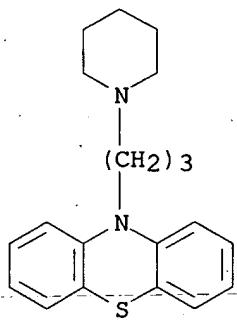
PA Aktiebolaget Astra Apotekarnes Kemiska Fabriker

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SE 134621		19520226	SE	
AB	Compds. of the formula RXY, in which R is a 10-phenothiazine residue, X is a straight- or branched-chain hydrocarbon residue, and Y is a 6-membered heterocyclic ring having a N atom attached to the hydrocarbon chain, are prepd. by treating phenothiazine with an aminoalkyl halide in the presence of a condensing agent. E.g., phenothiazine is heated with NaNH ₂ in PhMe and then with 1-(1-piperidyl)-2-chloropropane-HCl to give 10-[2-(1-piperidyl)isopropyl]phenothiazine, b0.3-0.4 190-200.degree.; HCl salt, m. 256-7.degree.. The following 10-substituted phenothiazines are similarly prepd.: [2-(1-piperidyl)ethyl], b0.3 220-30.degree. (HCl salt, m. 154-5.degree.); [2-(4-morpholinyl)ethyl], b0.1 187-90.degree., m. 74-5.degree.; [2-(4-thiamorpholinyl)isopropyl], b0.05, 165-70.degree.; [3-(1-piperidyl)propyl], b0.5 230-40.degree.. Also, 3-methoxy-10-[2-(4-morpholinyl)isopropyl]phenothiazine, b0.5 220-30.degree..				
IT	3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)- (prepn. of)				
RN	3733-38-8 CAPLUS				
CN	10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)				



09/849,400 (Patel)

=> d his

(FILE 'HOME' ENTERED AT 15:55:36 ON 29 MAY 2003)

FILE 'REGISTRY' ENTERED AT 15:55:41 ON 29 MAY 2003

FILE 'STNGUIDE' ENTERED AT 15:56:06 ON 29 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:57:21 ON 29 MAY 2003

L1 STRUCTURE UPLOADED

L2 38 S L1 SSS SAM

L3 STRUCTURE UPLOADED

L4 2 S L3 SSS SAM

L5 STRUCTURE UPLOADED

L6 1 S L5 SSS SAM

L7 17 S L5 SSS FUL

FILE 'CAPLUS' ENTERED AT 16:00:07 ON 29 MAY 2003

L8 38 S L7

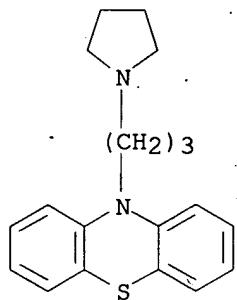
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L9 22 L7

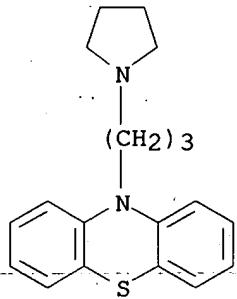
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L9 ANSWER 1 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA63:12153h CAOLD
 TI inhibition of sickling by phenothiazines-comparison of derivs.
 AU Lewis, Roger A.; Gyang, F. N.
 IT 2622-25-5 98845-25-1
 RN 2622-25-5 CAOLD
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, monohydrochloride (8CI)
 (CA INDEX NAME)



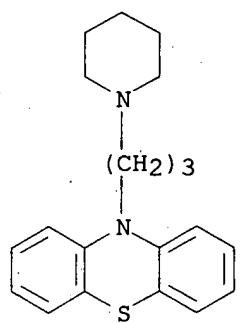
● HCl

RN 98845-25-1 CAOLD
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI)
 (CA INDEX NAME)

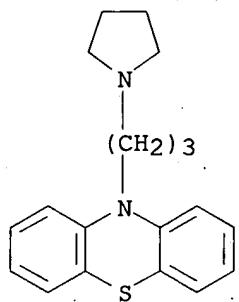


●x HCl

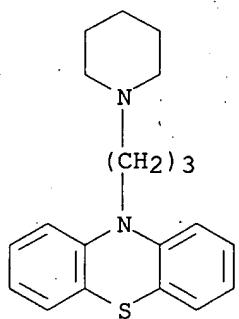
L9 ANSWER 2 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA61:9924f CAOLD
TI intensity and duration of central nervous action in 2-acetylated
phenothiazines and phenoxazines
AU Ribbentrop, Annemarie; Schaumann, W.
IT 3733-38-8
RN 3733-38-8 CAOLD
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



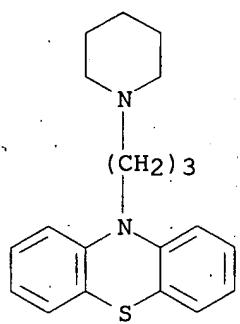
L9 ANSWER 3 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA60:2219g CAOLD
 TI antiarrhythmic action of phenothiazine derivs. - (III) relation between chem. structure and antiarrhythmic action and side effects as well as clin. results
 AU Yoshitani, Hideichi
 IT 3733-37-7 3733-38-8
 RN 3733-37-7 CAOLD
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 3733-38-8 CAOLD
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

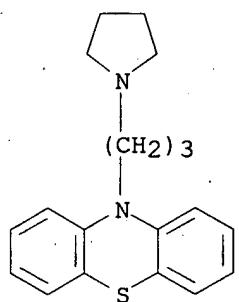


L9 ANSWER 4 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA59:8751f CAOLD
TI 1,2,5-thiadiazole
AU Wen, Richard Y.
IT 99889-18-6
RN 99889-18-6 CAOLD
CN Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride (7CI) (CA INDEX
NAME)

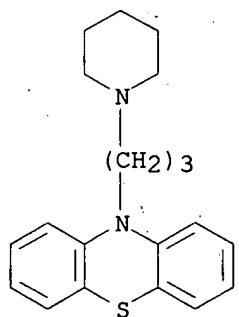


● HCl

L9 ANSWER 5 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA58:9535g CAOLD
TI effect of alkylating agents on the excretion of taurine in the urine
AU Schuberth, Jan; Sorbo, B.
IT 3733-37-7 3733-38-8
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



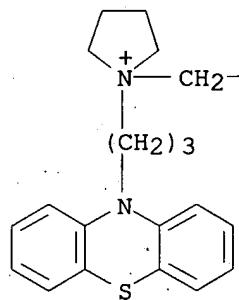
RN 3733-38-8 CAOLD
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L9 ANSWER 6 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA57:15122i CAOLD
TI phenothiazine derivs.
PA Rhone-Poulenc S. A.
DT Patent

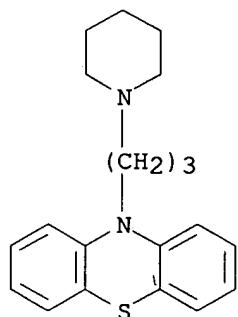
PATENT NO. KIND DATE

PI FR 73105
IT 102288-48-2
RN 102288-48-2 CAOLD
CN 1-[2-(Diethylamino)ethyl]-1-(3-phenothiazin-10-ylpropyl)pyrrolidinium chloride (6CI, 7CI) (CA INDEX NAME)

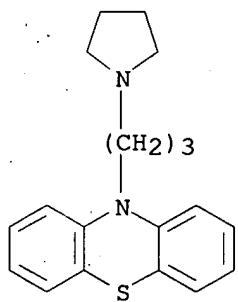


● Cl⁻

L9 ANSWER 7 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA57:11788g CAOLD
 TI antiarrhythmic action of phenothiazine derivs.
 AU Sato, Tatsuo; Tanabe, Y.
 IT 3733-38-8 98845-25-1
 RN 3733-38-8 CAOLD
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

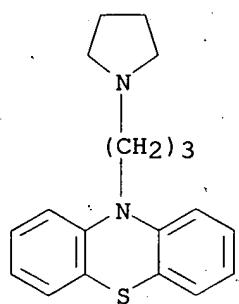


RN 98845-25-1 CAOLD
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI)
 (CA INDEX NAME)

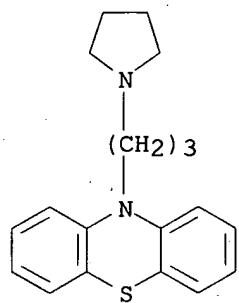


●x-HCl

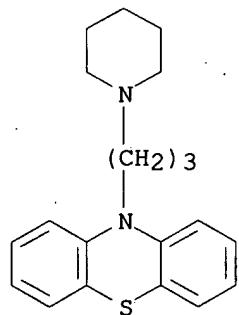
L9 ANSWER 8 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA56:7941d CAOLD
TI action of derivs. of phenothiazine on the multiplication of plant and animal cells and microorganisms
AU Loddo, Bernardo; Zanda, G. E.
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



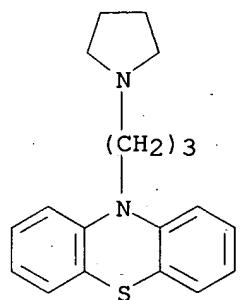
L9 ANSWER 9 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA55:19932f CAOLD
 TI phenothiazine derivs. - (XVI) prepns. of amino substituted phenothiazines
 by reductive amination with LiAlH₄
 AU Hromatka, Otto; Proestler, G.; Sauter, F.
 IT 3733-37-7 3733-38-8
 RN 3733-37-7 CAOLD
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
 NAME)



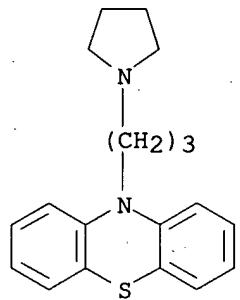
RN 3733-38-8 CAOLD
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L9 ANSWER 10 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA55:15743b CAOLD
TI decrease of urinary elimination of taurine after prolonged treatment with
isoniazid
AU Marcucci, F.; Mussini, E.
TI series of alkyl-substituted amine derivs. of dibenzo-p-thiazine - (VI)
action on the brain protein picture
AU Tonini, Giuseppe; Missere, G.; Murari, G.
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)

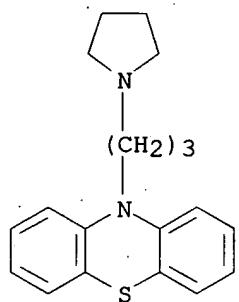


L9 ANSWER 11 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA55:15743a CAOLD
TI series of alkyl-substituted amine derivs. of dibenzo-p-thiazine - (V)
action of prolonged treatment on the glycoprotein of the serum
AU Missere, G.; Campanini, T.; Tonini, G.
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)

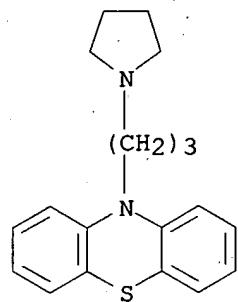


L9 ANSWER 12 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA55:8437g CAOLD
TI 10-(pyrrolidinoalkyl)phenothiazines
PA Societe des usines chimiques Rhone-Poulenc
DT Patent

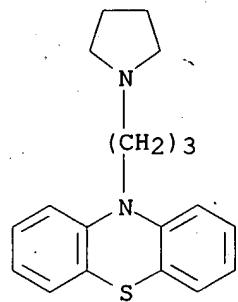
PATENT NO.	KIND	DATE
PI FR 1167631		
IT 3733-37-7		
RN 3733-37-7 CAOLD		
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)		



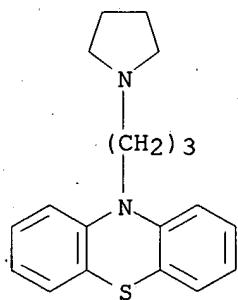
L9 ANSWER 13 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA54:21651c CAOLD
TI photodynamic action of phenothiazine derivs.
AU Prino, Giuseppe; Santamaria, L.
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)



L9 ANSWER 14 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA53:20552h CAOLD
TI influence of 3-methylchromone on the central nervous system
AU Prino, Giuseppe
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)

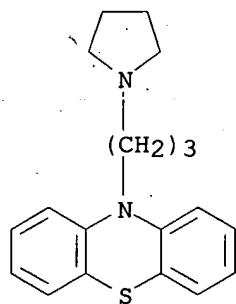


L9 ANSWER 15 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA53:11417g CAOLD
 TI aminosulfenyl halides
 AU Freytag, Helmut; Lober, F.
 DT Patent
 TI phenothiazine derivs.
 PA Societe des usines chimiques Rhone-Poulenc
 DT Patent
 TI phenothiazines
 AU Jacob, Robert M.; Robert J. G.
 DT Patent
 PATENT NO. KIND DATE
 PI DE 940829
 PI DE 965968
 IT 113929-04-7 114383-61-8 114421-44-2
 122871-96-9
 RN 113929-04-7 CAOLD
 CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)



D1-Me

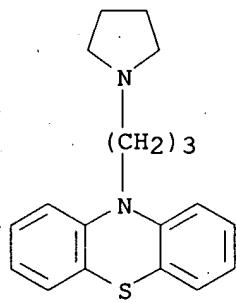
RN 114383-61-8 CAOLD
 CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI) (CA INDEX NAME)



D1-O-Me

● HCl

RN 114421-44-2 CAOLD
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)

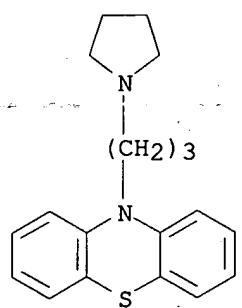


D1-O-Me

RN 122871-96-9 CAOLD
CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]-, oxalate (6CI) (CA INDEX NAME)

CM 1

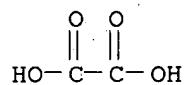
CRN 113929-04-7
CMF C20 H24 N2 S
CCI IDS



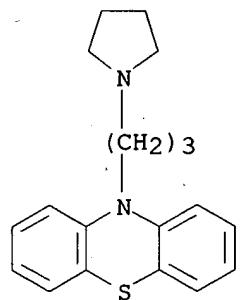
D1-Me

CM 2

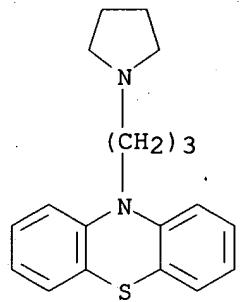
CRN: 144-62-7
CMF C₂ H₂ O₄



L9 ANSWER 16 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA53:7404f CAOLD
TI effect of tranquilizing drugs on enzyme systems
AU Smith, Jackson A.; Carver, M. J.; Helper, E. W.
TI use of dyes in therapy and the dangers to human health
AU Truhaut, Rene
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)



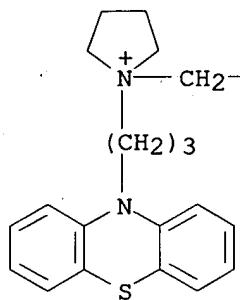
L9 ANSWER 17 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA53:3503a CAOLD
TI effect of tranquilizing agents and related compds. on the succinoxidase system
AU Helper, Eleanor W.; Carver, M. J.; Jacobi, H. P.; Smith, J. A.
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L9 ANSWER 18 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA52:2934g CAOLD
 TI phenothiazine derivs.
 PA Societe des usines chimiques Rhone-Poulenc
 DT Patent

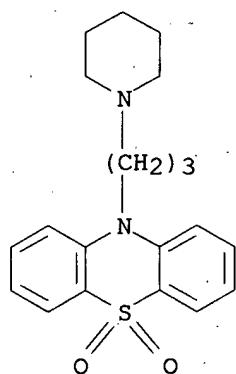
PATENT NO. KIND DATE

PI GB 782431
 IT 102288-48-2
 RN 102288-48-2 CAOLD
 CN 1-[2-(Diethylamino)ethyl]-1-(3-phenothiazin-10-ylpropyl)pyrrolidinium chloride (6CI, 7CI) (CA INDEX NAME)

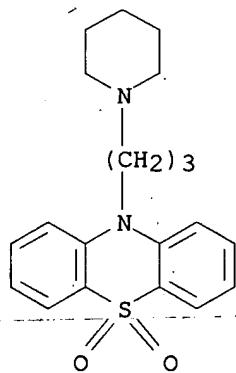


● Cl⁻

L9 ANSWER 19 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA52:390e CAOLD
 TI 10-(3-dimethylaminopropyl)-2-(trifluoromethyl)phenothiazine HCl and related compds. - (I)
 AU Yale, Harry L.; Sowinski, F.; Bernstein, J.
 TT 110332-15-5 112625-50-0
 RN 110332-15-5 CAOLD
 CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide (6CI) (CA INDEX NAME)

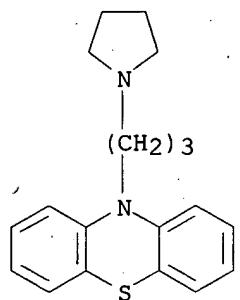


RN 112625-50-0 CAOLD
 CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide, hydrochloride (6CI) (CA INDEX NAME)

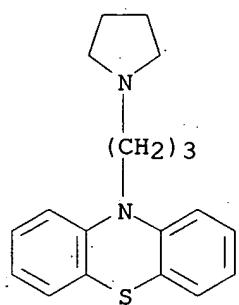


● HCl

L9 ANSWER 20 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA51:5282g CAOLD
TI antiproliferative and antitumoral action of derivs. of phenothiazine
AU Paulesu, F.; Vargiu, L.
TI influence of estrogens and progestogens on the action potential and the stimulation of the uterus
AU Jung, Hugo
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L9 ANSWER 21 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA51:5188c CAOLD
TI action of isonicotinic acid hydrazide, and its relation to the catalase
power of microbacteria
AU Garattini, Silvio; Leonardi, A.; Moriguchi, Y. P.
TI antibacterial activity of derivs. of phenothiazine
AU Loddo, Bernardo
IT 3733-37-7
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)



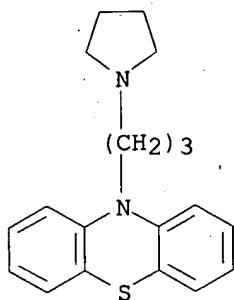
L9 ANSWER 22 OF 22 CAOLD COPYRIGHT 2003 ACS
 AN CA51:1300e CAOLD
 TI phenothiazine derivs.
 PA Societe des usines chimiques Rhone-Poulenc
 DT Patent

PATENT NO. KIND DATE

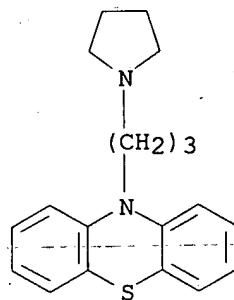
PI GB 745069
 IT 3733-37-7 98845-25-1 111065-81-7
 115079-94-2

RN 3733-37-7 CAOLD

CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 98845-25-1 CAOLD
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI) (CA INDEX NAME)

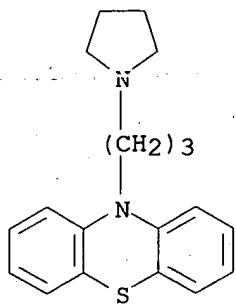


● x HCl

RN 111065-81-7 CAOLD
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, methiodide (6CI) (CA INDEX NAME)

CM 1

CRN 3733-37-7
 CMF C19 H22 N2 S



CM 2

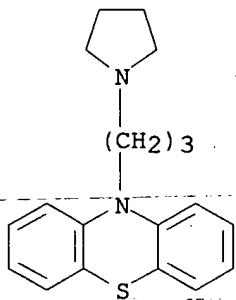
CRN 74-88-4
CMF C H3 I

H3C—I

RN 115079-94-2 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, oxalate (6CI) (CA INDEX NAME)

CM 1

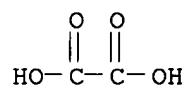
CRN 3733-37-7
CMF C19 H22 N2 S



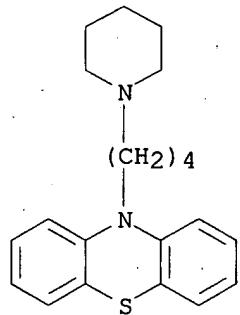
CM 2

CRN 144-62-7
CMF C2 H2 O4

09/849,400 (Patel)



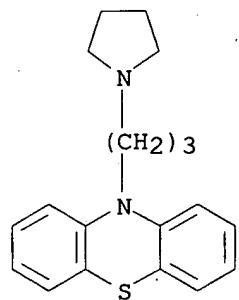
L8 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1999:512075 CAPLUS
 DN 131:286423
 TI One-pot synthesis of pharmacologically active diamines via rhodium-catalyzed carbonylative hydroaminomethylation of heterocyclic allylic amines
 AU Rische, Thorsten; Muller, Kai-Sven; Eilbracht, Peter
 CS Organische Chemie I (FB 3), Universitat Dortmund, Dortmund, D-44221, Germany
 SO Tetrahedron (1999), 55(32), 9801-9816
 CODEN: TETRAB; ISSN: 0040-4020
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 131:286423
 AB Pharmacol. active derivs. of phenothiazine, iminodibenzyl, carbazole and pyrazole are prepd. with high yields and chemoselectivity by the reaction of the corresponding N-allylic or N-methallylic compds., primary or secondary amines, carbon monoxide and hydrogen in the presence of $[\text{Rh}(\text{cod})\text{Cl}]_2$ as catalyst via a one pot hydroformylation-amine condensation-redn. sequence.
 IT 246041-11-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (one-pot synthesis of diamines via rhodium-catalyzed carbonylative hydroaminomethylation of heterocyclic allylic amines)
 RN 246041-11-2 CAPLUS
 CN 10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)



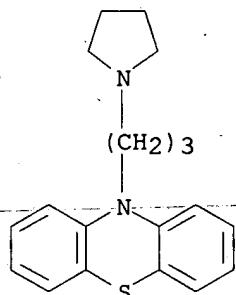
No utility stated!

RE.CNT 106 - THERE ARE 106 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1972:547761 CAPLUS
 DN 77:147761
 TI Stability of some phenothiazine free radicals
 AU Levy, Louis; Tozer, Thomas N.; Tuck, L. Dallas; Loveland, Donald B.
 CS Public Health Serv. Hosp., San Francisco, CA, USA
 SO Journal of Medicinal Chemistry (1972), 15(9), 898-905
 CODEN: JMCMAR; ISSN: 0022-2623
 DT Journal
 LA English
 AB The stability of 57 10-alkylphenothiazine free radicals in H₂SO₄ soln. depended on the nature of the substituents at both the 2 and 10 positions, and did not correlate with the usual antipsychotic doses of the phenothiazine tranquilizers. The influence on radical stability of the 2-substituent was predictable by the Hammett meta-substituent const. At position 10, a branched-chain aliphatic moiety yielded a more unstable radical than did a straight-chain moiety, and stability increased with increasing no. of C atoms between N10 of the phenothiazine nucleus and the N in the side chain. The most stable radical obsd. was derived from 10-[4-(dimethylamino)butyl]phenothiazine (I) [33326-77-1], and the least stable from 2-bromo-10-[2-(dimethylamino)propyl]phenothiazine (II) [1757-73-9] and 2-propionyl-10-[2-(dimethylamino)propyl]phenothiazine (III) [362-29-8].
 IT 38878-76-1
 RL: PRP (Properties)
 (stability of, psychotropic activity in relation to)
 RN 38878-76-1 CAPLUS
 CN 10H-Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, radical ion(1+) (9CI)
 (CA INDEX NAME)



L8 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1965:465949 CAPLUS
 DN 63:65949
 OREF 63:12153h,12154a-b
 TI Inhibition of sickling by phenothiazines: comparison of derivatives
 AU Lewis, R.A.; Gyang, F. N.
 CS Ghana Acad. Sci., Accra
 SO Archives Internationales de Pharmacodynamie et de Therapie (1965), 153(1),
 158-71
 CODEN: AIPTAK; ISSN: 0003-9780
 DT Journal
 LA English
 AB Fifty-three phenothiazine derivs. have been screened for their ability to inhibit glucose 6-phosphate dehydrogenase (I) of erythrocytes and for their ability to inhibit sickling of red blood cells. A good degree of correlation was found between the ability to inhibit I and to prevent sickling. Of the 13 compds. most active against I and of the 22 compds. most active against sickling, 11 fell into both categories. This relation was not correlated with the ability to tranquilize. In both respects, the most active compd. was demethylchlorpromazine (II). The most active compds. had the ring structure of phenothiazine or thioxanthene with a propyl side chain at C-10 with the terminal C radical bearing a dimethylamino N. Restricted movement of the side chain caused by incorporation of these methyl groups into ring structures did not reduce activity. The secondary amine, II, was more active than the tertiary amines formed by dimethyl or diethyl substitution on the amino N. The effect of substitutions at C-2 was variable.
 IT 98845-25-1, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride
 (effect on erythrocyte sickling and glucose-6-dehydrogenase)
 RN 98845-25-1 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI)
 (CA INDEX NAME)



● x HCl

L8 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1964:12388 CAPLUS

DN 60:12388

OREF 60:2219g-h,2220a-b

TI Antiarrhythmic action of phenothiazine derivatives. III. The relation between chemical structure and antiarrhythmic action and side effects as well as clinical results

AU Yoshitani, Hideichi

CS Hokkaido Univ., Sapporo

SO Japan. Circulation J. (1963), 27(6), 487-98

DT Journal

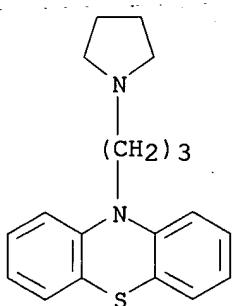
LA Unavailable

AB cf. CA 59, 9218h. The antiarrhythmic action of 23 phenothiazine (I) derivs., on extrasystoles produced in dogs of about 10 kg. wt. by intravenous injection of Na thiopental (0.025 g./kg.) and 2% BaCl₂ (1.5 mg./kg.), were compared using chlorpromazine (II) as a standard (0.01-10.0 mg./kg. used). 10-[3-(1-Pyrrolidinyl)propyl]phenothiazine-HCl (4695 R.P.) (III) was more effective than, promazine and acepromazine were equally effective as, 3-cyano-10-(3-dimethylamino-2-methylpropyl)phenothiazine (7204 R.P.), trimeprazine, methotriimeprazine, 3-chloro-10-(3-diethylaminopropyl)phenothiazine (4909 R.P.), perphenazine, prochlorperazine, and chloropromazine S-oxide were less effective than, and phenethazine, 10-(2-dimethylamino-1-methylethyl)phenothiazine (4460 R.P.), diethazine, proquamazine, 10-(2,3-dipiperidinopropyl)phenothiazine (7145 R.P.), 10-(3-dimethylamino-2-methylpropyl)phenothiazine (3300 R.P.), promethazine, and thioridazine were much less effective than II. It seemed that changes in the length and branching of the C chain at position 10 (the N atom) of I corresponded to changes in potency of antiarrhythmic action but changes in the group substituted at position 3 seemed, in general, to have no effect. Changing the dimethylamino group of II to a pyrrolidinyl group greatly enhanced the antiarrhythmic action but neither a piperazine nor a piperidine group showed any effect in this position. Side effects such as drowsiness and toxicity seemed unrelated to antiarrhythmic potency, though, in general, when antiarrhythmic action was weak these side effects were also weak. However, the strongly antiarrhythmic III showed little toxicity or sedative action. When II was used in conjunction with procaine amide or with quinidine, antiarrhythmic potency was enhanced.

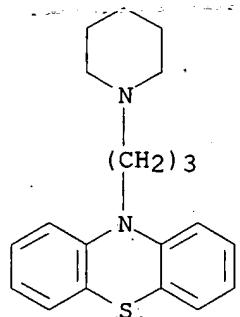
IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-

3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
(heart arrhythmia response to)

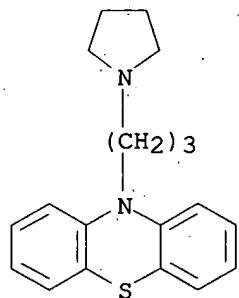
RN 3733-37-7 CAPLUS

CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX
NAME)

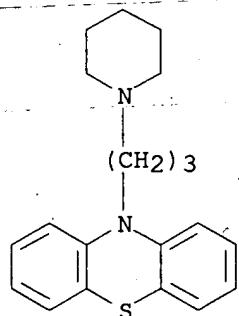
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2003 ACS
 AN 1963:55584 CAPLUS
 DN 58:55584
 OREF 58:9535f-g
 TI Alteration of tissue pyridine nucleotide levels and the central nervous system
 AU Burton, Robert Main
 CS Washington Univ. School of Med., St. Louis, MO
 SO Inhibition Nervous System Gamma-Aminobutyric Acid, Proc. Intern. Symp., Duarte, Calif. (1960), 1959, 249-59
 DT Journal
 LA Unavailable
 AB Chem. agents are able to elevate or depress diphosphopyridine nucleotide (I) levels of animal liver and brain. These agents also affect the central nervous system. Nicotinamide, which elevates central nervous system I, protects against the toxic action of isopropylphenylhydrazide and of 3-acetylpyridine. Tranquilizing agents are able to maintain nicotinamide-induced elevation of I.
 IT 3733-37-7, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
 3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
 (effect on codehydrogenase I in tissue, central nervous system and)
 RN 3733-37-7 CAPLUS
 CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 3733-38-8 CAPLUS
 CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2003 ACS

AN 1957:5875 CAPLUS

DN 51:5875

OREF 51:1300d-g

TI Phenothiazine derivatives

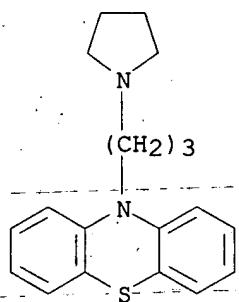
PA Societe des usines chimiques Rhone-Poulenc

DT Patent

LA Unavailable

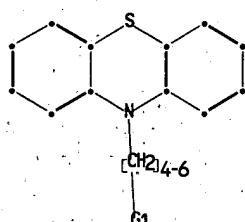
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 745069		19560222	GB	
AB 3-Pyrrolidino-1-chloropropane 23.6 g. in xylene 50 cc. was added over 0.5 hr. while stirring to phenothiazine 26.5 g., 85% NaNH ₂ 7.8 g., and xylene 100 cc. at 110.degree., the heating continued 2 hrs. at 140.degree., the mixt. cooled, H ₂ O 200 cc. added, then made acid to methyl orange with HCl (d. 1.16, 25 cc.), the xylene layer sep'd. the aq. layer extd. with Et ₂ O 100 cc., the Et ₂ O decanted, the aq. layer made alk. to thymolphthalein with NaOH (d. 1.33, 25 cc.), the base extd. with Et ₂ O 3 times. 100 cc. to give 35 g. 10-(3'-pyrrolidinopropyl)phenothiazine (I), b0.45 210-20.degree.; oxalate, m. 198.degree.; MeI salt, m. 196-8.degree.; HCl salt, m. 158.degree.. Heating 2-bromo-2'-aminodiphenyl sulfide (II) with 1-chloro-3-pyrrolidinopropane and NaNH ₂ and isolating as above gave 2-bromo-2'-(3''-pyrrolidinopropyl)aminodiphenyl sulfide b0.4 214-30.degree.. II was obtained from the corresponding NO ₂ compd., which was prep'd. from 2-BrC ₆ H ₄ SH and 2-ClC ₆ H ₄ NO ₂ . I is valuable as a pharmacodynamic agent, of which its anti shock and hypertensive activities are most important; it also enhances or prolongs the effects of anaesthetics and analgesics.					
IT	3733-37-7	Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (and methiodide and other derivs.)			
RN	3733-37-7	CAPLUS			
CN	Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)				

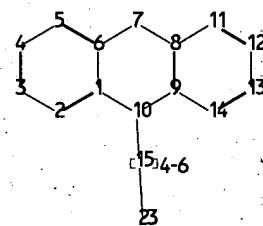


364

ca1 No2



1@1 1@2



chain nodes :

15 23

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ring/chain nodes :

18 19

chain bonds :

10-15 15-23

ring bonds :

1-2 1-6 1-10 2-3 3-4 4-5 5-6 6-7 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14

exact/norm bonds :

1-10 6-7 7-8 9-10 15-23

exact bonds :

10-15

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-11 9-14 11-12 12-13 13-14

isolated ring systems :

containing 1 :

G1:[*1], [*2]

Hydrogen count :

2:>= minimum 1 3:>= minimum 1 4:>= minimum 1 5:>= minimum 1 11:>= minimum 1
12:>= minimum 1 13:>= minimum 1 14:>= minimum 1

Connectivity :

7:2 X maximum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:CLASS 18:CLASS 19:CLASS 23:CLASS

09/849,400 (Patel)

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2016 OR 2026 OR 2039 OR 2040 OR 2045

L1 SCREEN CREATED

=>
Uploading C:\STNEXP4\QUERIES\09849400 (Patel).str

L2 STRUCTURE UPLOADED

=> que L2 NOT L1

L3 QUE L2 NOT L1

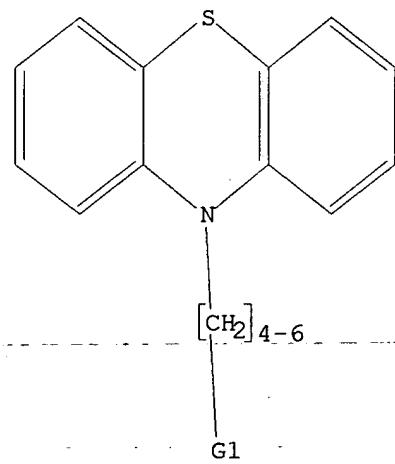
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L3 HAS NO ANSWERS

L1 SCR 2016 OR 2026 OR 2039 OR 2040 OR 2045

L2 STR

1 N 2



G1 [@1],[@2]

Structure attributes must be viewed using STN Express query preparation.

L3 QUE L2 NOT L1

=> s 13 sss sam

SAMPLE SEARCH INITIATED 13:27:35 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 79 TO ITERATE